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EXPLORATORY STUDIES ON DRUG ABUSE IN THE ASIAN REGION 1996

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Exploratory Studies On Drug Abuse In The Asian Region—1996

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CONTENTS

INTRODUCTION

The Asian Multi-City Epidemiology Study Program entered its fifth consecutive year in 1997. The Asian Epidemiology Work Group (AEWG), now consisting of 22 cities has been established. A city based surveillance system has been developed in eleven cities. These cities are Bangkok—Thailand, Kuala Lumpur—Malaysia, Manila—Philippines, Hanoi—Vietnam, Yangon—Myanmar, Vientiane—Laos, Phnom Penh—Cambodia, Colombo—Sri Lanka, Dhaka—Bangladesh, Islamabad—Pakistan and Chennai (Madras)—India.

AEWG comprises the East and South Asian Work Group. Two regional meetings and a joint meeting were held in 1996. During the meetings, the participants reported on the problem of drug abuse in their cities/countries. In addition, training sessions on drug abuse epidemiology, concepts of ethnography and its application in drug-related studies were conducted. Small group discussions were held during to identify critical problems in drug abuse and to use qualitative research techniques for data collection in these research areas.

Qualitative research techniques were found to be suitable for small investigations and exploratory studies in drug abuse as this problem is commonly confined to small and hidden populations. The use of qualitative research methods such as focus groups, in-depth interviewing, participant observation and ethnography, facilitates exploratory research in some parts of the area of drug abuse that is still unknown or that which has not been explained well before. Such research methods can also generate large amounts of rich qualitative data in a short time and are highly flexible in being applicable for various settings and purposes. Using these qualitative research techniques, participants worked on common research topics in drug abuse such as prevention, recovery and relapse, drug usage trends, risk behaviors, drug use resiliency, dependent characteristics and demand situations. Detailed aspects were studied and new frontiers were explored in these common areas of research in drug abuse.

This publication presents a collection of the findings of such small investigations. The studies are largely exploratory in nature where specific and emerging issues in the area of drug abuse have been studied using qualitative research methods. The studies were also instrumental in exposing the emergence of new drugs among the abuser population and the resultant problems from a socio-medical perspective.

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PART 1

SOUTH ASIAN STUDIES

PATTERNS AND TRENDS OF BUPRENORPHINE ABUSE — AN ETHNOGRAPHIC STUDY

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SUMMARY

A study was undertaken to understand the nature and trend of buprenorphine abuse on the basis of users response. A snowball sample of 30 individuals who had been using buprenorphine for different durations were included in this ethnographic study. The subjects were recruited from treatment program contacts. The information for database was gathered from a combination of structured and open-ended interviews. Relevant information were collected on socio-demography of the study population, their drug use history and pattern, knowledge of buprenorphine, current drug use pattern and its progression and related life situation and drug related factors.

Buprenorphine has been available in Bangladesh for last three to five years, and only in injectable form. All the respondents, except one, of this study population were previous opiate, especially heroin users. The motivation for switching over to buprenorphine use appeared to be suppression of withdrawal effects of other opiates due to non-availability or temporary scarcity or price hike of the latters. However, quite a number of respondents mentioned about its role in the treatment of heroin dependence. Whether an active or passive user, most of the respondents were introduced to the drug by a user who provided information and helped getting it. Various circumstances were described for the first use of the drug but the continuation of the habit was justified by its low cost, easy availability, low dose requirement, immediate and prolonged effect and minimum immediate adverse consequences.

Dose requirement was found relatively low and same was the case with a frequency of taking the drug. Intramuscular route was more preferred than intravenous due to its prolonged action. Needle sharing and repeated use of unclean needles were quite frequent. Most of the respondents reported of combining the drug with diazepam, promethazine or pheniramine.

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3. INTRODUCTION

Buprenorphine is a mixed partial agonist and antagonist class of opiates. Its role as a useful and safe analgesic with lower liability to abuse than the pure opiate agonists is well established. The kinetics of the drug at receptor interaction is slow resulting in a long duration of action. Clinical studies over the last decade favored its role in the treatment of opiate withdrawal. Recognizing the potential utility of buprenorphine in the treatment of opiate dependence, many treatment facilities in South-Asian countries started using the drug for the purpose. Because of its pharmacological characteristics buprenorphine is claimed to be more acceptable to opiate-abusing population and discontinuation of the drug should be easier than detoxification from pure agonists like methadone. In Bangladesh, the drug has never been registered, produced, imported or marketed. But cases of buprenorphine abuse started appearing at different drug addiction treatment facilities since 1992. The nature of its abuse and its availability on the street is showing a definite upward trend in recent days. Treatment center information and seizure reports from different law enforcement agencies and also media reports confirm its emergence as a primary drug of abuse in this country. Abuse of buprenorphine has also been reported from India, Nepal and recently from Pakistan.

Bioavailability of buprenorphine is quite low if administered orally. The preferred route is sublingual, but the sublingual formulation would be vulnerable to diversion and abuse by injection. Parenteral preparation of the drug is also available for medical use.

It is, therefore, suggested that a combination of buprenorphine and pure opiate antagonist like naloxone or nalteroxone would not discourage subjects on maintenance to use it and at the same time cause sufficient withdrawal effects in opiate dependents. Accordingly, National Institute on Drug Abuse (NIDA) proposed studies to examine status of buprenorphine as an alternative to the use of methadone. Although the drug has already been considered and used as an alternative to methadone in opiate withdrawal and maintenance program in many South-Asian countries, scientific information on the pattern of its use and misuse, and its abuse potential is very scarce. Now that reports are available about its illicit use and its availability on the street from Bangladesh, India, Nepal and Pakistan, it is felt necessary to understand the dynamics of its primary use, use as a substitute, switching over to it from other opiates, its continuation and other related events.

The purpose of the current study was to assess the history of emergence of buprenorphine abuse and the extent of its epidemic on the basis of users response. The study design would aim at understanding the details of trends of abuse especially the role and functioning of buprenorphine in users patterns of drug use. The findings were expected to reveal reasons of indulgence and its continuation. This is part of a collaboration with the effort of NIDA to study buprenorphine as an alternative to the use of methadone in the United States.

4. STUDY DESIGN, MATERIALS AND METHOD

The study was designed to generate information on the history of emergence of buprenorphine abuse and its patterns and trends including its street role on the basis of users response.

4.1 The Questionnaire

A 31 point questionnaire (ref: Annexure) with start questions and scope for multiple probes in most of them was prepared with the help from Dr. Alfred Pach, Research Analyst, National Opinion Research Center at the University of Chicago. There were structured questions with single or short answer and open-ended questions. The structured questions, fewer in number, mostly covered demographic characteristics and part of the drug use history. Open-ended questions were aimed at exploring the first use stories, role of buprenorphine in users' pattern of use and other relevant interesting information spontaneously provided by user individuals. The questionnaire was first prepared in English and then translated into local venacular. The questionnaire was later pre-tested on a very small sample and necessary modifications and adjustments were made.

4.2 The Interviewers

The principal investigator and the co-investigator themselves supervised most of the interviews. They themselves conducted quite a few of them. The interviewers, two of them, had university degrees. They were given an overall idea of the nature of the study and were provided with a brief training on interview technique. A few of the initial interviews were conducted by the principal investigator taking the co-investigator and the interviewers along. During the course of the study the interviewers were found quite oriented to the study and the questionnaire.

4.3 The Subjects

The sample was collected from different parts of the city which has a population size of more then 6.5 millions. Effort was taken to secure a diverse group of subjects and the selection process could ultimately include a broad range in user characteristics. Given the short time frame allotted for the study to be completed, a relatively small suggested sample of 30 respondents was found to be reasonable. Initial contacts were made with the abuser population at the treatment center. It was decided to use the treatment center as the place for interviews because the center was supposed to be a neutral place for the subjects and the abuser population were found less hesitant to come to this center and ventilate the information. Because of the time constraints, the treatment population was used to reach the buprenorphine abusers and minimum difficulty was encountered in doing so. Most of the respondents were later found quite motivated to receive treatment. They were not paid any other incentive for the interviews. Most of the respondents were accompanied by their family members or relatives. It was thus possible to get the relevant information confirmed by their family members after necessary consent from the respondents.

4.4 The Interviews

The interviews were conducted in the premises of drug addiction treatment center. The principal investigator is the Chief Consultant and Director of the treatment center. The purpose of the study was explained to the subjects and confidentiality was guaranteed. After obtaining informed consent, the subjects were interviewed in an open and friendly atmosphere. However, care was taken so that more factual and relevant information could be obtained. Information were collected during a single interview. The interview time varied between one hour and three hours. Notes were taken during the course of interview and later expanded and transcribed to the report sheet. Few of the interviews were tape-recorded.

4.5 Compilation Of Data

Most of the responses were clustered into groups and presented in tabular form to make the information more conspicuous. Open-ended information are narrated in descriptive terms. Tables are virtually summary of descriptions. Qualitative descriptions are quoted without any modification or alteration.

5. STUDY RESULTS

5.1 Sociodemography

5.1.1 Age, Sex, And Marital Status

Age distribution of all male limited number consecutive cases of buprenorphine abuse that came across interviewers is shown in **Table 1**. Most of the abusers, two thirds of them, were between 20 and 30 years of age and none was below 20. More than half (16) of them were married (**Table 2**).

Table 1: Agewise Distribution Of Buprenorphine Abusers

Age in years	Number	%
20 - 24	3	10.00
25 - 29	10	33.33
30 - 34	10	33.33
35+	7	23.34

Table 2 : Marital Status Of Buprenorphine Abusers

Marital Status	Number	%
Married	16	53.33
Unmarried	14	46.64

5.1.2 *Education And Occupation*

Fourteen (46.6%) had petty business, rest were mostly skilled workers. Only four of them were unemployed (**Table 3**). Nearly one third had elementary level education and another third secondary level. Eight (26.67%) of them were illiterate (**Table 4**).

Table 3 : Occupationwise Distribution Of Buprenorphine Abusers

Occupation	Number	%
Unemployed	4	13.33
Skilled workers	6	20.00
Transport workers	4	13.33
Service	1	3.33
Business	14	46.68
Physician	1	3.33

Table 4 : Level Of Education Of Buprenorphine Abusers

Years Of Education	Number	%
0	8	26.67
1 - 6	9	30.00
7 - 10	10	33.33
11 - 12	1	3.33
13 - 17	2	6.67

5.1.3 *Socio-Economic Background*

The study population came from different economic backgrounds. More than one third had personal income between Taka 1,000.00 and 5,000.00 a month and another third between Taka 5,000.00 and 10,000.00. However, half of the respondents had family

income from all sources of Taka 10,000.00 or above (Taka 100 = US $ 2.5 approximately (**Table 5**).

Table 5 : Monthly Income Of Self And The Family Of Buprenorphine Abusers

Level of income (Tk)	Self (Number) (%)	Family (Number) (%)
0	04 (13.33)	00 (00.00)
1 - 1,000	00 (00.00)	00 (00.00)
1,001 - 5,000.	11 (36.67)	05 (16.67)
5,001 - 10,000	10 (33.33)	10 (33.33)
10,001+	05 (16.67)	15 (50.00)

5.2 Drug Use History

5.2.1 *Previous Drug Use*

All the respondents had history of drug use before they were introduced to buprenorphine. Besides tobacco use, the most frequency used drug was heroin followed by cannabis, alcohol, sedative-hypnotics and codeine phosphate. Out of 30 cases, 29 were previous heroin users (**Table 6**). Half of the respondents started smoking before the age of 15 and another 12 before age 19. More than one third started using other drugs of abuse before 19 years of age and one third between 20 and 24 years (**Table 7**).

Table 6 : Type Of Drugs Used Previously By Buprenorphine Abusers

Type Of Drugs Used	Number (%)
Tobacco	30 (100.00)
Cannabis	21 (70.00)
Codeine	06 (20.00)
Heroin	29 (96.66)
Pethidine	08 (26.66)
Sedative-Hypnotics	10 (33.33)
Alcohol	15 (50.00)
Promethazine	01 (03.33)

Table 7 : Age Of First Use Of Drugs By Buprenorphine Abusers

Age in years	Tobacco Use (%)	Other Drugs of Abuse (%)
Below 15	15 (50.00)	04 (13.33)
15 - 19	12 (40.00)	12 (40.00)
20 - 24	03 (10.00)	10 (33.34)
25 - 35	00 (00.00)	04 (13.33)

5.2.2 Current Drug Use

Almost all the respondents currently use other drugs in addition to buprenorphine. Most frequently used drug was parenteral diazepam (76.66%) followed by promethazine (anti-histamine) (33.33%), cannabis (16.66%) and pheniramine (10%). Other drugs were heroin, codeine, nitrazepam, alcohol and pethidine. Most of the respondents used more than one drug. Nineteen (63.33%) of them reported that they used one or the other daily. Some of those drugs were used once or 2 - 3 times a week and some only occasionally (**Table 8**). Twenty respondents (66.66%), however, informed that they used those drugs, specially diazepam, promethazine and pheniramine, in combination with buprenorphine.

Table 8 : Current Drugs Of Abuse Among Buprenorphine Abusers And Frequency Of Their Use

Types of drugs	Number (%)	Frequency	Number (%)
Diazepam	23 (76.66)	Daily	19 (63.33)
Promethazine	10 (33.33)	Once a week	4 (13.33)
Pheniramine	3 (10.00)	2 - 3 times/week	1 (03.33)
Heroin	1 (03.33)	Occasionally	10 (33.33)
Codeine	1 (03.33)		
Cannabis	5 (16.66)		
Nitrazepam	1 (03.33)		
Alcohol	1 (03.33)		
Pethidine	1 (03.33)		

5.3 Knowledge Of Buprenorphine

5.3.1 Time And Source Of Information

Buprenorphine is a new addition to the list of opiates abused by the drug abuser population in this country. Most of the study population (76.66%) said that they heard about the drug, one to three years back, a few of the respondents (13.33%) even before that. Half of the users heard it from their user friends. Other sources of information were user acquaintances, user relatives, drug dealers, non-user friends and relatives, locality people, neighbors and previous users in that order (**Table 9**).

Table 9 : Time And Source Of First Information About Buprenorphine

Time of Information	Number (%)	Source of Information	Number (%)
Less than a month ago	00 (00.00)	User friends	15 (50.00)
Less than a year ago	03 (10.00)	User acquaintances	05 (16.67)
1 - 3 years ago	23 (76.67)	User relatives	03 (10.00)
4 - 5 years ago	04 (13.33)	Drug dealers	02 (06.68)
		Non-user relative	01 (03.33)
		Non-user friend	01 (03.33)
		Neighbor	01 (03.33)
		Locality people	01 (03.33)
		Previous user	01 (03.33)

5.3.2 Knowledge Of Use Prevalence

The respondents mentioned that they knew many people taking the drug. The number they mentioned varied between less than 10 to more than 100. Similarly, they mentioned numbers between one and more than 50 for their friends using buprenorphine. Five of the respondents, however, said that none of their friends use the drug (**Table 10**). Table 10 also shows the prevalence of the abuse of buprenorphine in the community as reported by abuse population. To describe its use prevalence in the community they quoted a wide bracket of less than 50 to more than 500 people taking it.

Table 10 : Knowledge Of Prevalence Of Abuse

No. of known people	Number (%)	No. of friends	Number (%)	No. of people in the community	Number (%)
Less than 10	04 (13.33)	None	05 (16.67)	< 50	10 (33.33)
10 - 30	07 (23.33)	1 - 10	14 (46.67)	51 - 100	4 (13.34)
31 - 50	05 (16.67)	11 - 20	07 (23.33)	101 - 300	10 (33.33)
51 - 100	09 (30.00)	> 20	04 (13.33)	301 - 500	3 (10.00)
> 100	05 (16.67)			> 500	3 (10.00)

5.3.3 Reasons For Use By Others, Its Duration And Source Of Information

Various possible reasons were identified by the respondents for the use of this particular drug by other people. The reasons are listed in **Table 11** in order of frequency. Majority mentioned about more than one reason.

Table 11 : Reasons Identified By Buprenorphine Abusers For Using The Drug By Others

- Low cost
- To leave heroin habit
- Low dose requirement
- To suppress withdrawal
- Better feeling
- Easy to conceal
- More strong
- New drug/experimentation
- Rapid action
- Less time consuming
- Less cumbersome
- Relaxing action
- Easy availability
- Persuasion by pushers
- Difficult to leave
- Not known

Most frequently mentioned reasons were low cost of the drug, intention to leave the habit of heroin use or to suppress withdrawal effects, and low dose (and frequency)

requirement. They thought that people knew about its use and had been using it for one to five years. The respondents in most cases mentioned more than one possible source for people to get the information. The sources mentioned more frequently were drug pushers, friends and acquaintances (**Table 12**). Some of them mentioned about more than one possible source.

Table 12 : Duration Of Use Of Buprenorphine By Others And Their Sources Of Introduction

Duration	Number (%)	Source of Introduction	Number (%)
1 - 3 years	17 (56.57)	Pushers	14 (46.66)
4 - 5 years	10 (33.33)	Friends	13 (43.33)
		Acquaintances	13 (43.33)
> 5 years	03 (10.00)	Gossip	04 (13.33)
		Curiosity/self	01 (03.33)
		Indian pusher	01 (03.33)

5.3.4 Popularity Of Buprenorphine

The respondents reported that the buprenorphine had been becoming popular. Many of them said that it was highly popular and was spreading very fast. Only two of them said that it was not that popular. The qualified the popularity as '50% of drug abusers use it', 'others will start', it crossed that of heroin', 'though competition with phensedyl' and so on. Almost all of them suggested that its easy availability in addition to other factors made it popular. They mentioned of several effects people may get when they take buprenorphine. Almost all of them mentioned more than one effect. Most frequently stated effects were suppression of withdrawal from heroin, sense of pleasure and relaxation, feeling fresh, and ability to perform normally. A list of possible effects one may get after taking buprenorphine as described by the drug users is given in **Table 13** in order of frequency of response. The respondents, 25 out of 30, said that use of buprenorphine was increasing. Only one said that it was decreasing. Low cost, low dose requirement and easy availability were identified as the most common causes of this increase. Other reported possible causes are enumerated in **Table 14**.

Table 13 : Possible Effects Other Users Get From Buprenorphine Use

— Suppression of withdrawal from heroin
— Sense of pleasure
— Relaxation
— Feel fresh
— Can do more work
— Can do normal activity
— Increased appetite
— Feel drowsy
— Feel like in a land of dream
— Energetic and happy
— Soothing
— Sensation becomes blunt
— Alertness blunted
— Body becomes light
— Relief from aches and pains
— Sweet smell
— Talk more

Table 14 : Causes Of Increasing Use Of Buprenorphine As Reported By The Respondents

— Low cost
— Low dose requirement
— Stronger in action
— Action lasts longer
— Quicker action
— Better action
— Keeps fresh
— Easy to take
— Makes energetic
— Milder in action
— New drug, curiosity
— Provides regularity in life
— Purity of heroin decreased
— Use as a treatment for heroin addiction

5.3.5 Characteristics Of Other Users

Characteristics of other buprenorphine users as described by the study population are shown in **Table 15**. Different types of responses were available from the respondents in reply to questions aimed at obtaining these information. Answers were clustered under fewer categories. Two thirds of the respondents said that 'only' male population used the drug and rest said it was 'predominantly' male population who used it. They said that some of the girls who look like 'university students' were also seen coming for this drug. According to them, the users were mostly in their twenties and thirties. Three of them mentioned of mostly middle aged people. Half of the study population identified the other users as middle class people and one third said they were mostly poor. Some of the respondents specified them as hard cash earners, those having illicit income and those who already exhausted their resources. More than two thirds reported that the consumers were coming from all levels of educational background. Five of them said that users were mostly illiterate and almost an equal number said they were mostly educated. Although some of the respondents identified the users as business people, transport workers, unemployed people and students, most (70%) of them favored the common belief that no occupation is immune to the abuse habit of this particular drug. The respondents could not identify any subcultural group who were among the regular users. Eight of them, however, expressed their ignorance and one each mentioned about students, handicapped people and hooligans (anti-social elements).

Table 15 : Characteristics Of Users As Reported By The Respondents

Characteristics	Number	%
Gender:		
Only Male	20	67.67
Mostly Male	10	33.33
Age group (years):		
21-30	17	56.67
31-40	10	33.33
41-50	3	10.00
Socio-economic group:		
Poor	10	33.33
Middle Class	15	50.00
Affluent	10	3.33
All classes	4	13.34
Level of education:		
All levels	21	70.00
More illiterate	5	16.67
More educated	4	13.33
Occupation:		
Any category	21	70.00
Mostly business	5	16.66
Mostly unemployed	4	13.33
Mostly transport workers	4	13.33
Mostly students	1	03.33
Subculture:		
No	19	63.31
Not known	8	26.67
Hooligans	1	3.33
Handicapped people	1	3.33
Students	1	3.33

5.4 Use Of Buprenorphine

5.4.1 Time Of First Use

Buprenorphine use is known in this country since 1992. Seventy percent of the study population reported that they had been using the drug for one to three years. Three (10%) of the respondents told that they were using it for four to five years. Only five (16.66%) informed that they started the drug less than a year ago and one less than a month ago (**Table 16**).

Table 16 : Time Of First Use Of Buprenorphine By The Respondents

Time of First use	Number	%
Less than a month ago	01	03.33
Less than a year ago	05	16.67
1 - 3 years ago	21	70.00
4 - 5 years ago	03	10.00

5.4.2 Circumstances Of First Use

While describing the circumstances of first use, different respondents mentioned different circumstances. Information are clustered and presented in **Table 17**.

Table 17 : Circumstances Of First Use Of Buprenorphine By The Respondents

- Nonavailability of heroin due to temporary crisis leading to withdrawal
- Users treated by the drug in India brought in the drug and others used it to leave heroin
- Heroin dealers informed them and advocated as miracle cure for heroin addiction
- Pressure from family to leave heroin use and suggestion from relatives to use the substitute
- Friends informed, persuaded and accompanied to drug source
- Scholastic failure/family feud leading to self-destructive behavior
- Gossip, confirmation by drug-store people and than accompanied other users
- Heard of new drug, curiosity and then tried the drug
- Fed-up with heroin, heard gossip and got motivated

A good number of respondents mentioned about temporary crisis and/or price hike of heroin resulting in withdrawal which compelled them to resort to buprenorphine use. Some of them were persuaded by friends or drug pushers at regular drug taking situation. There were also stories of family pressure to leave heroin habit and then suggestion by non-use friends or relatives which generated idea to think about this alternative. There were also situation where the heroin abuser visited a pharmacy to confirm the gossip they heard about this drug and its role in miraculous cure from heroin addiction. They also mentioned about scholastic failure or family feud which led them to try this new drug on a impulsive decision. All of them however told that they were not high on other drugs when they tried buprenorphine for the first time. Majority (83.33%) of them said that they were rather experiencing withdrawal from heroin at that time.

The respondents mentioned of different place where they had their first shot. Almost equal numbers had their first dose of buprenorphine in drug stores (pharmacy), abandoned houses/garage and drug dens. A list of the places is given in **Table 18**. Half of them had their user friends with them at the time of taking the drug for the first time. Six (20%) of them had their first dose with some known and unknown people around. Another six of them however told that they were all alone at the time of taking the first dose. Fifty percent of the study population were introduced to the drug by their user friends and another 23.33% by drug pushers and dealers. Companions during first use and source of introduction is shown in **Table 19**. Most of the users (83.33%) had their first dose by intramuscular route.

Table 18 : Place Of First Use

Place	Number	%
Pharmacy	7	23.33
Abandoned house/garage	6	20.00
Drug den	6	20.00
Another users house	3	10.00
Relative's house	3	10.00
Roof of own house	2	6.67
Hospital campus	1	3.33
Work place	1	3.33
Dormitory	1	3.33

Table 19 : Companions During First Use And Source Of Introduction

Companions	Number (%)	Source	Number (%)
User friend	15 (50.00)	User friends	15 (50.00)
Known and unknown people	06 (20.00)	Drug pushers/dealers	07 (23.33)
		Non-user friends	02 (06.67)
None	06 (20.00)	Relatives	02 (06.67)
Relatives	02 (06.67)	Own decision	02 (06.67)
Non-user friends	01 (03.33)	User colleague	01 (03.33)
		Locality people	01 (03.33)

The reasons they first started the drug were described as 'scarcity of heroin and withdrawal', 'to punish the family', 'in response to persuasion', 'to fight frustration', 'its low cost and same strength' and 'in a intention to leave heroin habit'.

5.4.3 Patterns Of Initial And Current Use

Pattern of buprenorphine use at the beginning by the respondents and that of its current use by the same group is shown in **Table 20**.

All but one respondent informed that they were taking this drug daily from the beginning. More than half were taking one ampoule a day, eight 2 - 5 amp/day and only one 6 - 10 amps/day. Four of them were taking less than one ampoule a day. One of the respondents, a doctor by profession, said that he was taking one ampoule once a week. Seventy percent were using the drug by intramuscular injections at the beginning, four by intravenous route and five by both the routes.

Currently all the respondents are using the drug everyday and 50% of them use 2 - 5 ampoules a day, 20% one amp/day and only one 6 - 10 amps/day. Five respondents use less than an ampoule a day. Whatever may be the amount, 86.66% respondents use the drug 2 - 5 times a day. Only three use the drug in a single dose but one of the respondent takes the injection 6 - 10 times a day. Majority of the study population like to take the drug by intramuscular (i.m.) injections, in most of their language 'in the marcels'. However, they frequently shift from one route to another, specially during taking drug combinations they prefer intravenous route (i.v.) (they call it 'in the vent'). The reasons they prefer i.m. route is, as they said, for its lasting effect.

Table 20 : Pattern Of Initial And Current Use Of Buprenorphine

Initial Use	Number (%)	Current Use	Number (%)
Time of use		Time of use	
Daily	29 (96.67)	Daily	30 (100.00)
Once a week	01 (03.33)		
Amount of use		Amount of use	
1 amp/week	01 (03.33)	Less than 1 amp/day	05 (16.67)
Less than 1 amp/day	04 (13.33)	1 amp/day	06 (20.00)
1 amp/day	16 (53.33)	2 – 5 amp/day	18 (60.00)
2 – 5 amp/day	08 (26.68)	6 – 10 amps/day	01 (03.33)
6 – 10 amps/day	01 (03.33)		
Route of use		Frequency of use	
Intramuscular	21 (70.00)	Once/day	03 (10.00)
Intravenous	04 (13.33)	2 – 5 times/day	26 (86.67)
Both	05 (16.67)	6 – 10 times/day	01 (03.33)

Responding to the question why do they use the drug, the most frequent response was to suppress the withdrawal effect. Many of them mentioned that they had an intention to leave the habit of heroin and they thought this drug would really help them to do so. But now they find it was equally difficult to leave this drug also. Other reasons enumerated were low cost, pleasurable effect, difficult to leave, it was stronger than heroin, easy availability and easy administrability. Many of them also added that the drug kept them alert and smart, they could continue normal regular life and perform normal activity. They further mentioned that the drug was easy to carry, less cumbersome to take and often it caused a pleasurable drowsiness (**Table 21**).

Table 21 : Reasons For Using Buprenorphine By The Study Population

- Suppression of withdrawal from heroin
- To treat heroin addiction
- Low cost
- Pleasurable effect
- Difficult to leave
- Ensures normal regular life and normal activity
- Stronger than heroin
- Keeps alert and smart
- Easy availability
- Easy administrability
- Easy to carry
- Cause pleasurable drowsiness

5.4.4 Combination Use

As mentioned earlier, two thirds of the respondents were using drug combinations. The drugs frequently used in combination with buprenorphine were diazepam (66.66%), promethazine (26.66%), pheniramine (10%) and pethidine (3.33%). Some of them even used more than one drug in combination. Seventy percent of positive respondents always used combination and rest only occasionally. Some of the latters used the combination usually during the evening dose.

The reasons they mentioned for using drug combinations were mostly vague and publicity oriented. Half of the positive respondents stated that they were told by others and another half told that combination with diazepam when taken i.v. gave a smell of 'foreign liquors' or 'apple'. They liked this 'sweet' smell. Twenty five percent did it because others did it and another 20% just to induce sleep. Most of them felt relaxed and sleepy after taking combination. Some of them however informed that they felt 'comfortable', 'excited' or had a 'pethidine like' effect.

5.4.5 Trends Of Abuse

5.4.5.1 Change In Amount:

Twenty six respondents (86.66%) reported that the quantity they used changed over time. Seventeen (56.66%) said that it increased, six (20%) said it increased initially then decreased and two (6.67%) said it fluctuated from time to time. Only one reported of a gradual decrease (**Table 22**). Those who reported an increase described the increase as two to five fold.

Table 22 : Trend Of Abuse Of Buprenorphine Among Respondents

	Number (%)
Change in amount used	
Yes	26 (86.67)
No	04 (13.33)
Trend of change	
Increased	17 (65.38)
Increased and than decreased	06 (23.08)
Fluctuated	02 (07.68)
Decreased	01 (03.83)
Nature of change	
Increase	2 to 5 times
Decrease	1/2 to 1/4

5.4.5.2 *Source And Quantity Of The Drug*

Most of the study population procured their drug from street sales (90%). Other sources mentioned were drug stores (6.67%) and user relatives (3.33%). According to majority of them the drug was quite strong. It was revealed from more than one third that there were two qualities of injections available here: one was weaker (they called it 'Hyderabad') and the other stronger (they called it 'Madras'). Only one respondent said that the injection was not strong. Compared to other drugs, specially to heroin, 60% of the respondents found the drug to be stronger and 20% weaker. Another 20% however, said that it was of equal strength. In response to the question whether the quality of the drug changed over time, the study population responded differently. Fourteen (46.67%) of them reported that the quality remained the same and 43.33% reported a deterioration (**Table 23**). All of them said that the drug was available only in ampoules.

Table 23 : Source And Quality Of Buprenorphine

Source:	Number (%)	Compared to heroin:	Number (%)
Street Sale	27 (90.00)	Stronger	18 (60.00)
Drug stores	02 (06.67)	Weaker	06 (20.00)
User relative	01 (03.33)	Equal	06 (20.00)
Quality:			
Strong	17 (56.67)		
Two types	12 (40.00)		
Not strong	01 (03.33)		

The respondents disclosed that it was very easy to distinguish between two qualities of buprenorphine injections. The stronger one looked more concentrated and produced more froth on shaking the ampoule.

5.4.5.3 *Price And Availability Of Tthe Drug*

Excepting one, all the buprenorphine abusers included in the study said that, considering the amount (and also time and frequency of use) needed, the price of buprenorphine was much cheaper compared to other drugs, especially heroin. They said that the price of the drug fluctuated, shooting up to five folds at times. Usually an ampoule cost less than take 40.00 (Tk. 40 = US$1.00). More than two thirds however stated that the unit price of the drug increased over time and 30% said that they had to spend less lately.

The respondents were almost unanimous in their opinion that the drug was easily available and the availability had been increasing. They qualified availability as 'widely', 'plenty', 'easily' etc. Comparing the availability with that of heroin, 66.67% users mentioned that it was equally available and 30% said it was more easily available than heroin (**Table 24**). A couple of them however, mentioned about occasional 'artificial' 'crisis' and 'temporary' price hike.

Table 24 : Price And Availability Of Buprenorphine

Price	Number (%)	Availability	Number (%)
Unit price		Nature	
Tk. 25 - 35	28 (93.33)	Easy	29 (96.67)
Tk. 50 and above	02 (06.67)	Difficult	01 (03.33)
Change of price		Change in availability	
Increased	21 (70.00)	Increased	29 (96.67)
Decreased	09 (30.00)	Decreased	01 (03.33)
Comparison with others		Comparison with others	
Cheaper	29 (96.67)	Equal	20 (66.67)
Expensive	01 (03.33)	More	09 (30.00)
		Less	01 (03.33)

Amount spent by the study population varied and it is shown in **Table 25**. Half of the users interviewed spent Tk. 100.00 - 500.00 weekly and one third Tk. 501.00 - 1000.00 on buprenorphine. Only five spent above Tk. 1,000.00 weekly. Monthly expenditure for the drug was limited to Tk. 1,000.00 - 3,000.00 for 76.67% respondents. Rest of them spent more than that amount.

Table 25 : Amount Spent By The Respondents For Buprenorphine

Weekly		Monthly	
Amount (Tk.)	Number (%)	Amount (Tk.)	Number (%)
100 - 500	15 (50.00)	1000 - 3000	23 (76.67)
501 - 1000	10 (33.33)	3001 - 6000	05 (16.67)
1001 - 1500	04 (13.34)	6001 - 9000	01 (03.33)
1501 - 2000	01 (03.33)	9000 - 12000	01 (03.33)

5.5 Spontaneous Information

There were quite a few information that came out spontaneously from the respondents during the course of interview. Those were as follows:

- Purity of heroin has been deteriorated;
- Combination of buprenorphine with diazepam and/or promethazine is more popular than buprenorphine alone;
- Needle sharing and repeated use of same needles are quite common;
- Buprenorphine is available on road-side and diazepam, over the counter;
- By using buprenorphine one can easily conceal abuse behavior;
- With buprenorphine it is easy to reduce the dose;
- Intramuscular use is more popular because of its lasting effect;
- Long time use makes one more irritable and one does not feel like taking it any more;
- It is probably manufactured locally/there are adulterated ones;
- Tobacco sticks soaked in ampoule content gives a different taste on smoking;
- The ampoule content is sweet in taste.

6. DISCUSSION AND COMMENTS

Buprenorphine (trade name: Tidigesic) abuse is a relatively newly emerging phenomenon in this country. It is now about three years since cases of buprenorphine abuse have been reported for the first time to the treatment facilities. Since then abuse of the drug has been showing a gradual rise. It is available, so far, in this country only in parenteral form. It is not a registered drug in this country and comes in through illicit trafficking from across the border. The drug is manufactured under different trade names, marketed and used as a pain killer in India. It is also used for the treatment of heroin withdrawal there, as is reported. We have no experience of using buprenorphine or methadone in the treatment of heroin withdrawal.

This study was undertaken to supplement the research effort of NIDA on abuse potential of buprenorphine. The study was obviously done under a great time constraint. Focus of the study had to be narrowed down to identify certain specific issues to understand the nature and trend of buprenorphine abuse on the basis of users response. Information were collected on the basis of a predesigned questionnaire which included mostly open-ended questions. Therefore, the data generated, specially on the knowledge and its abuse pattern, are the result of spontaneous response of the abuse population.

The socio-demographic characteristics of the limited number of study population were not very different from those of other opiate abusers seeking treatment for their

dependence. The population characteristic described by the respondents also revealed a similar consumer profile.

Almost all the respondents were previous multiple drug abusers, heroin being the primary drug of abuse at the time of switching over to buprenorphine. It appeared from initial information that there was a big gossip or advertisement among the abuser population about the role of buprenorphine in miraculous cure of heroin dependence. Treatment facility information revealed that cases of buprenorphine started reporting to the facilities first from the areas having land borders with India. People living in the border areas frequently cross borders for different purposes. Moreover, many of the drug dependent people visit India for the treatment of their dependence, where buprenorphine is used for detoxification. It was however apparent from the interviews that the motivation to use this drug was mainly suppression of withdrawal effect due to nonavailability, temporary scarcity and/or price hike of heroin. Moreover, there are reports that heroin available in this country is very low in purity. Gradual fall in purity of heroin, which is mainly smoked or chased in this country, may be one of the reasons of switching over to parenteral form of drugs of which buprenorphine is a choice. Thus both necessity and availability of new substance might have contributed equally to this switching over. Overall cost involved in using buprenorphine is much lower compared to that for heroin. The drug is equally easily available, dose requirement is relatively low and it supposedly controls the withdrawal features quite effectively. The frequency requirement for taking the drug is much less and the procedure is obviously faster. The treatment facilities hardly come across cases taking very high dosage of the drug, a phenomenon very seldom noticed in case of pethidine abuse. The respondents claimed that the drug helped them to continue their days' works and they could refrain themselves from other drug related activities. It was also easy to conceal other abuse behavior. The whole phenomenon supports the suggested effect of the pharmacological profile of buprenorphine. Another added advantage of this drug is its medical use and its pharmacological labeling. Although majority of respondents got their drugs from street sales, two of them mentioned of its availability in drug stores. Drug dealers can safely use drug stores for the purpose of storage and sale.

Multiple drug using patterns were clearly evident within this sample, both in their past and their current drug use habit. In traditional pattern of multiple drug use, an abuser tend to add any newly emerging drug to his consumption list instead of replacing older ones by the new drug.

Circumstances of first use of buprenorphine are not different from traditional circumstances of first use except for mentioned motivation of using the drug with the intention to leave the heroin habit. In the existing cultural context, it is not very usual for a relative or family member to advise to use any medicinal substance, whether legally available or not, to replace socially stigmatized substances of abuse like heroin. However, majority of the respondents in this study were first introduced to this drug by somebody who was already using it, a phenomenon likely to happen with any newly emerging drug of abuse.

Unlike usual self-destructive behavior shown by many drug addicts, most of the respondents were found repentant and regretful. Help seeking behavior was distinctly apparent. In rationalizing their decision to try buprenorphine and to continue it, most respondents tried to establish a passive participation, although in some of them impulsive self-destructive circumstances could be identified among other provoking factors.

A significant majority of respondents were found to use buprenorphine in combination with either diazepam or an anti-histaminic or both. Half of the respondents could not ascribe any reason behind this combination use. Advertisement played a considerable role here, it seems. Most of them started using the combination as they were told by others to do so or they had seen others to do that. Some of the respondents mentioned about getting the smell of foreign branded alcoholic beverages. On inquiry it was found that they had never tasted those beverages. It seems publicity in favor of this combination use among sub-culture people is quite impact generating.

Analysis of the findings and spontaneous reponses obtained from the respondents indicate that the population characteristics of buprenorphine abuse is not very different from other drug use population profile. However, sample size and very narrow focus of the study design do not allow to reach any conclusive impression about this cohort of opiate users. In most respects there does not appear to be a major difference in the knowledge, past drug use history, current drug use pattern, and factors related to its emergence and continuation to the range of processes and patterns observed in case of other drugs of abuse. The only factor deserving mention is identification of role of buprenorphine in the treatment of opiate dependence by the user population. Other variables like purity of heroin, price of buprenorphine, its pharmacological profile and thereby it effects, and related dynamics should be some of the selected areas for further research.

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ANNEXURE

QUESTIONNAIRE

Patterns And Trends Of Buprenorphine Abuse - An Ethnography Study

A. Socio-demography

1. Age: .....
2. Sex: .....
3. Occupation: .....
4. Marital Status: .....
5. Education: .....
6. Income (per month)
   (a) Self: ..... Tk. .....
   (b) Family: ..... Tk. .....

B. Drug Use History and Patterns:

7. What were the first drugs you used?
   (a) Name of the drug(s): .....
   (b) Age of first use: .....
8. (a) What drugs are you using now (besides buprenorphine)?
   Name of the drugs:
   -
   -
   -
   (b) How often do you use them?
9. Do you use any drugs in combination?

C. Knowledge of Buprenorphine

10. When did you first hear about its use (how long ago - weeks, months, years)?
11. How did you first hear about it (source of information - friend, a user, gossip, newspaper, health care practitioner)?
12. (a) How many people do you know use it?
    (b) Do many of your friends use it?
    (c) Why (or why not) do they use it?
    (d) How long have they been using it?
13. Do you know how they were introduced to it (friend, physician, acquaintance, at a party etc.)
14. (a) How many people would you estimate in your community use it?
    (b) How popular is it?
    (c) What effect do they get from it?
    (d) Is its use increasing? Why (or why not)?
15. Who is using it?

    Gender: .....

    Age: .....

    Social group (affluent, middle class, poor): .....

    Level of education: .....

    Occupation: .....

    Subcultural group (teens, pop singers): .....

D. Use of Buprenorphine

16. When did you first try buprenorphine (how long ago)?
17. (a) Can you describe the circumstances of the first time you used it?
    (b) Where were you at that time (setting - party, friends' house)?
    (c) Who were with you?
    (d) Who introduced you to the drug?
    (e) Why did you use it?
    (f) How did you first use it (route of use)?
    (g) Any other probe question.

18. Thinking back first time you injected it:

(a) How long after you used buprenorphine you injected it?
(b) What were the circumstances surrounding the first time you injected it?
(c) Who were with you at that time (relationship)?
(d) Were you high on other drugs at that time?

19. (a) How often did you use at first (how many times a day/week/month)
(b) How much did you use at (over a period of time)?
(c) How did you use it (route)?

20. (a) How often do you use it now?
(b) How much do you use it now (over a period of time)?
(c) How frequently you use it now (how many times a day/week/month)?

21. Why do you use buprenorphine?
- for its pleasurable effect
- to help withdrawal symptoms of other drugs when latters are not available
- other drugs are not of sufficient strength causing withdrawal symptoms
- to boost up the effect of other drugs
- others

22. (a) Do you combine it with other drugs?
(b) If so, to which drugs?
(c) When and why do you combine it with other drugs?
(d) What effect does this combination provide?

23. (a) Has the amount of buprenorphine you need changed over time?
(b) If it has changed, how has it changed?

24. (a) In what form is it available (ampoules etc.)?
(b) What is its unit price?

25. What is your source of buprenorphine (physician, drug store, drug pushers)?

26. How much do you spend a week on buprenorphine? A month?

27. (a) Has the price changed over time (in comparison to last year, last months)
(b) How does this price compare with other drugs?

28. How available is it?

29. How is its quality (strong, pure)?

30. (a) How does it compare with other drugs, especially heroin?
- quality
- price
- availability

(b) Has its quality, price or availability changed over time?

31. Any information spontaneously offered by informant, which seems interesting and not covered in previous questions.

SOCIAL PERCEPTIONS OF CANNABIS USE — AN ETHNOGRAPHIC STUDY

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ABSTRACT

An in-depth study was undertaken mostly on the basis of open ended interviews to understand the social perceptions of cannabis abuse in an urban community in Bangladesh. The study included a small component of participant observation also. Twenty two people of different social, economic and educational background were interviewed. Four of them, including one woman, were regular cannabis users. In open-ended interviews, the respondents disclosed mostly uniform ideas and perception about cannabis use in the community, its effects and need for any intervention program for cannabis users.

During the course of interview it was revealed that cannabis use was an age old problem in that community and it has never been considered as harmful a substance as opiates. Ideas about its harmful effects were rather vague. Most of the participants tried to portray a typical profile of a cannabis user and there was a tendency to look down at those users. They were little ambivalent in their opinion about the need for any intervention program for cannabis users. Answers to some of the queries revealed the trend of cannabis use and also emergence of newer substances of abuse like LSD in Bangladesh.

INTRODUCTION

Drug use is an age old phenomenon in Bangladesh, as in most other parts of the world. There is both a tradition and history of production of cannabis and its consumption. It was not until December, 1989 that cannabis was made illegal to fulfill the obligations of provisions in United Nations Single Convention on Narcotic Drugs of 1961. Until that time, cannabis could be legally purchased from licensed vendors. Cultivation and production of cannabis products were, however, limited mainly to a defined region of the northern part of the country and there were strong social control against its consumption in mainstream society. In fact, relatively more serious use of these days started only in early seventies.

Because of controversies and lack of clear understanding about the effects of cannabis among the general population including those involved in drug use prevention activities, very little prevention and intervention programs were taken against its abuse, rather the abusing population found a positive rationale for their choice of cannabis use as opposed to other forms of drug taking. Although it is scheduled as a 'narcotic substance' in the national narcotic legislation, the usual opinion is that cannabis is relatively harmless, and of special importance, many are convinced that cannabis does not lead to addiction or discomforting withdrawal symptoms.

In the backdrop of above prevailing situation in most of the countries of the region it was decided in the Asian Multi-City (South Asia) Epidemiology Work Group meeting in July-August this year that a qualitative study on the social perception of cannabis use should be done. Consequently this study was undertaken on the basis of an open ended questionnaire with certain definite focus in a local urban community, where use of cannabis is know to be quite prevalent, to understand the community perceptions about cannabis abuse. Besides, there is a very small component of participant observation in this report.

THE STUDY

Demography

Demography Of The People Interviewed

• Age	:	23 to 65 years
• Sex	:	Male - 18, Female - 04
• Education	:	0 to 17 years
• Occupation	:	Business Service (GO and NGO) Medical Practice Housewife
• Residence	:	Urban
• User of cannabis	:	4 (03 M; 01 F)

The study was done in Mohammadpur area of Dhaka city, which is one of the biggest residential areas of the city mostly inhabited by middle class families. The area is almost in the middle of the city and acquired the bad name of being a safe place for drug vendors and criminals. The focus of the study was restricted to an area around a market place called Town Hall Bazaar. This is a crowded market place where there are quite a few pharmacies within the vicinity. Quite a number of slums grew up in and

around the catchment area and there is concentration of the largest number of immigrant population who migrated to this country from India in 1947. They are non-Bangla speaking muslims and never showed loyalty to this country and opted for migrating to Pakistan. But Pakistan has never agreed to take them in. Consequently they have become a major floating population and live in a camp like arrangement called "Geneva Camp" partly supported by the International Red Cross Society. The author and one of the field workers went around the area just after evening and tried to examine the available information about the availability of the drug in the area, group drug taking in certain parts of the market place and nature of people in the group. This was a simple observation just to have a feel of the situation.

After initial assessment of the catchment area twenty two people between 23 and 65 years of age were interviewed during August 15 to October 25 this year. A few of the subjects, however, did not live in the same area. Although there was a wide age range, most of the participants were young and were within 30 years of age and four of them including a female participant were regular cannabis users. The female user was discovered only incidentally. She came to visit a doctor accompanied by her husband for her restlessness and anxiety when the author was talking to the physician. In all, four women were interviewed.

All the participants were literate except one and the literate people had between 5 to 17 scholastic years. They were business people, public or private service holders, one medical practitioner and house wives. Almost half of the participants were interviewed in the private office of the author because of certain practical difficulties. It was a bit difficult on the part of the author to find a suitable store front in the vicinity to conduct the interview. Nineteen of the participants were relatively permanent residents of the area.

The Existence Of The Problem

Perception About The Existence Of The Problem

♦ Extent	:	Very much Random Most prevalent Many take it 50% of young population take it Not that prevalent (1)
♦ Availability	:	Plenty Huge

The general perception of the participating community people was that the use of cannabis was widespread in the community. Perception of men and women, and users and non-users were almost alike. They used the terms like 'widely', 'random' to describe the extent of its use and 'plenty', 'huge' to describe it availability. Some of them thought it was the most prevalent drug of abuse in that community. One of them said that 50% of youth population of the area abuse cannabis and only one mentioned that it was not that a big problem for quite some time.

General Profile Of Abusers

General Profile Of Cannabis Users

■ Age	:	Young; 20 to 45 years
■ Sex	:	All male
■ Education	:	Educated and uneducated both
■ Occupation		No specific occupation Unemployed Laborers (with good earning)
■ Class	:	Mostly poor and middle class
■ Nature of use	:	Mostly regular
■ Onset	:	Between 15 and 20 years

Most of the people interviewed told that mostly the young people abuse cannabis but almost all of them gave an age range between 20 and 45 years. They wanted to say that once people started using it they continued it unabated for long. All of them, however, mentioned that many of the users start smoking cannabis quite early in their age, between 15 and 20 years. Only a few of the subjects identified the abusers as laborers having good earnings or unemployed people but most of them did not mention of people of any specific occupation to be more involved.

The participants were unanimous in their opinion that the users were mostly poor or middle class people, and both educated and uneducated people used the drug. They thought that the user population used it regularly.

Extent Of Use

Extent Of Cannabis Use

- Wide spread, specially among poor
- 30 - 50% young population use it
- Smell of 'ganja' everywhere
- About 5% of population use it
- Increased minor crimes is an indicator

Existence of the problem was further qualified by the statements that the use of cannabis was quite wide spread specially among the poor. They went further to mention that one can get the smell of cannabis everywhere around the place after dark. They estimated a range of 30 to 50% young people to abuse it and about 5% of total population of the area used it. The participants indicated that increase in minor crimes like theft in the area was due to increase in the use of cannabis in the area. In the course of interview one of the participants mentioned about the availability of LSD in that area and the price of the drug also.

Profile Of A Typical Cannabis Abuser

Profile Of A Typical Cannabis User

- Pale, frail, weak, lean, poor health, diseased
- Blackened skin, dry hair, unkempt;
- Dirty long nails, stained teeth;
- Restless, hyperactive
- Friendly, speaks well;

Almost all of the participants portrayed a typical profile of drug abuser. He was identified as a weak, pale, lean and frail person having blackened skin, dry hair, dirty long nails and stained teeth. A poorly kempt man was always found restless and hyperactive. They mentioned that he usually looked diseased. Some of them mentioned him as a friendly person who spoke well and also quite convincingly.

Pattern Of Cannabis Use

Pattern Of Use Of Cannabis

▪ Pattern	:	Everyday, few only occasionally
▪ Frequency	:	Regular, mostly once, at night
▪ Amount	:	Varies
▪ Route	:	Smoking
▪ Combination	:	Continues even after switching over

The participants believed that most of the cannabis abusers used it regularly and everyday, and only a few used it occasionally. Some of them thought that they mostly used it at night and could be for once only. Most of them, however, could not mention about the frequency of drug taking. The idea among non-abusing population about the amount one used daily was very vague. However, the abuser population mentioned about number of sticks. They thought that those who abused cannabis usually smoked it and they would never change the habit even if they switched over to another drug of abuse.

Reasons For Use

Reason For Using Cannabis

• Factors related to drug:	- Cheap, easy to get - Believed to be source of energy - Believed to help tiredness and bodyaches - Believed to be less harmful
• Factors related to person:	- To derive pleasure, relax - Frustration, family tension - Boredom, money available - No valid reason, just a habit - No adequate reason, nothing else to do - Can not afford other drugs - Better feeling with other drugs

Reasons for cannabis use, as identified by the participant community people, may be classified into two groups: factors related to the drug itself and factors related to the

abusers. The drug was cheap, easily available, believed to be a source of energy, lees harmful and helped tiredness and body aches, the participants thought. The abusing population smoked it to relax, drive pleasure, overcome family tension, frustration and boredom. Some of them, however, mentioned that people were taking it without any valid or adequate reasons, and they had enough money to do that. They used to take it as they had nothing else to do and could not afford more expensive ones. The cannabis users, in addition, mentioned that it gave a better feeling if smoked after taking phensedyl or heroin.

Place Of Use

Places Of Cannabis Use

- No specific place
- Den
- Narrow streets, street sides, culverts
- '*Adda*', in groups, rarely alone
- Bus stand, open field, roof top
- House, educational institutes
- Shrines
- Prefer open spaces, smell, needs preparation

Various place were mentioned by the participating community people where people usually smoked cannabis. Majority of them mentioned that cannabis was usually smoked in groups, and rarely alone, in places like drug dens, narrow streets, '*adda*', bus stands, culverts, educational institutes, and sometimes at somebody's house. They usually preferred to smoke cannabis at night because it gave typical smell and it needed to be prepared before smoking. Open-aired spaces like roof top or open fields were preferred by many. All the participants particularly mentioned about shrines to be a safe place to get and smoke cannabis.

Effects Of Cannabis On Health

Effects Of Cannabis Use

- No major damage
- Deterioration of health
- Weight loss
- Lack of energy
- Lung disease
- Tuberculosis
- Sexual disease
- Brain damage
- Mental illness

All the participants except the physician found cannabis to be a less harmful drug and they have made some general comments about its effects on health like deterioration of health, weight loss, lack of energy and so on. A few of them, however, mentioned that as the drug was smoked, it might cause tuberculosis or other lung diseases but they were not quite sure of that. Only three of them mentioned of cannabis causing sexual diseases meaning loss of libido. They physician, however, specifically mentioned about brain damage and mental illness.

Cannabis Causing Other Problem

Cannabis Causing Other Problems

- Family problem
- Work problem
- Financial problem
- Social alienation
- Moral problem
- Crime
- Cognitive deficit
- Crime
- Some showed ignorance

Although cannabis was considered to be a less harmful drug by most of the community participants they mentioned of a host of consequences that could be caused by cannabis abuse. These were a kind of general hastily made comments. They mentioned about family problems, work problems, financial problems, moral degradation, behavioral problems, cognitive deficit, social alienation and crime. Three of them, however, showed ignorance of any major effect because they knew people smoking cannabis for long time and at the same time maintaining a normal personal, family and social life.

Nature Of Cannabis Use And Its Consequences

Nature Of Use And Consequences

- Young suffer most, older less affected
- Chronic users are difficult to identify
- Early onset leads to worse consequences
- It does not make any difference

General perception was that it did not make any big difference whether the user was young or old as far as its effects on health are concerned. But they thought younger people would suffer more if there was any effect. The earlier the onset, the worse should be the consequences. Chronic users usually became tolerant and they were difficult to identify.

Relationship With Use Of Other Drugs

Relationship Of Cannabis With Use Of Other Drugs

- Leads to harder drugs eg. Phensedyl
- Switches over when gets bored
- Combination gives better feeling
- Some restrict to it only
- No idea (2)

Most of participants instantly said that the cannabis users ultimately switch over to other drugs although they continue using cannabis also. The abusers usually starts taking harder drugs, they added. The specifically mentioned phensedyl. Only two of the respondent showed ignorance about any such switching over. All three male

cannabis users agreed they got bored with cannabis and they quite often use other drugs like phensedyl. They were unanimous about a different feeling when cannabis was smoked after or during taking other drugs.

Types Of Cannabis Products And Their Use Consequences

Types Of Cannabis And Their Effects

- Do not know
- No clear idea, not sure
- It does not matter
- '*Ganja*' is not dangerous, less harmful
- '*Bhang*' is less harmful than the other two
- '*Bhang*' and '*charas*' are difficult to get

Non-user participants did not have any clear idea about different types of cannabis products like '*ganja*', '*bhang*' or '*charas*'. They informed that they were not quite sure whether different cannabis products had different effects and thought it did not matter whether one used one or the other. But, the users had different opinions. One mentioned that '*ganja*' was not dangerous and less harmful. One of them confidently told that '*bhang*' was less harmful than the other two but it was difficult to get '*bhang*' or '*charas*'.

Need For Treatment And Intervention

Need For Treatment And Intervention

- Must be, usually good response
- No use treating them
- They cannot leave it
- They won't leave it
- Very few need treatment
- Only very young and chronic users need treatment

There were divided opinions on the issue whether there should be any need for treatment or intervention programs for cannabis abusing population. Some of the participants thought that there must be some intervention program and it should give a good result. Some of them thought that the cannabis users did not need any treatment

and some others thought that there was no use treating them as they would never leave the habit. Only 2 of them mentioned that only a few needed treatment, the very young and chronic users.

Spontaneous Comments

Spontaneous Response

- Mostly repetition
- Adulterated cannabis available
- 27 selling points
- Availability of LSD
- Life time experience
- It will continue, none can stop it
- Does not cause them harm

Almost all the participants repeated some of the things they have already said when they were asked whether they had any other thing to say. Things deserving mention were information on adulterants used with cannabis, number of selling points in the city and one time experience of using cannabis by non-users. They categorically mentioned about 27 selling points in the city. It again became apparent that people had very vague ideas about the harmful effects of cannabis, during winding up of the conversation.

DISCUSSION

The catchment area identified is known as a safe place for both drug vendors and drug abusers. According to police administration it is one of the crime zone of the city. Besides the investigator lives in a nearby residential area. The experience gained during walking through the market place was quite different from what would have happened while walking through other market places. People sitting in groups in darker spaces, their spontaneous approach to the author and advice to not to roam around the area made the study little difficult. However, part of this difficulty had been overcome by inviting some of the participants to the investigator's office instead of doing it in that area. In contrast, the participants interviewed were found very little hesitant to answer the questions, which gives the impression that people around the area have already learned to live with this problem.

Effort was taken to accommodate different categories of people as respondents. Older people happened to show very little interest in the issue of cannabis use. Traditional history of cultivation of cannabis and its use might be the reason why people are less concerned about the drug. Moreover, current governmental policy on ban on cultivation, production and sale of cannabis products was not well publicized. Sudden emergence of drugs like heroin pushed the drug lower down in the hierarchy. General perception about the effects of this drug was not very different among users and non-users. Whatever preventive communications so far have been made, both at public and private level, were mostly on opiates. Therefore, the ideas still remained very vague and inconclusive. Comments on the extent of use were more generalized and somewhat random and quantification appeared rather exaggerated. Their concerns were inconsistent with their perception of the problem.

Impression of participating community people about general profile of cannabis users was consistent with that about drug abusing population in general. However, upper limit of the age range was reasonably higher, may be because of presence of a number of known chronic elderly cannabis users in the community. They are actually harmless people, usually dependent and sometimes may be helpful. Because of its familiarity and traditional history of its abuse, cannabis had never been incriminated for any social or moral offense in the past. Similar idea is still prevailing in the society. However, with the increase of social crimes people learned to correlate this increase with other existing social deviance's. While portraying a typical cannabis user, it was observed that people were more inclined to draw a typical picture of cannabis user as done in movies and stage performances. However, young people having external appearance as described by the participants were not infrequently seen in and around that area. General perception of pattern of abuse is again the most usually believed idea that cannabis is usually smoked mostly at night, and like smoking a cigarette they smoked it everyday. Idea of non-users was quite vague about the amount one used daily. Users, however mentioned about sticks. Cannabis, specially '*ganja*' is sold nowadays in Dhaka city in sticks. These are usually relatively expensive and poorer consumers usually prepare it by themselves. Non-user population in the community were not very well aware of different types of cannabis products and the term '*ganja*' is almost synonymoyusly used for cannabis products. User population although knew about different types of cannabis product, their knowledge about the products, how they were prepared and its effects were quite vague.

People in general did not see any valid reason for taking cannabis. They found the users as people who had nothing else to do at leisure period and they were taking cannabis as a part of their habit. They, however, mentioned, sometimes the drugs with sarcasm, that the substance was cheap and easily available, and those people could not afford anything more than this. Some of the respondents of course mentioned about common beliefs about cannabis among the abusing population. These beliefs specially those about its effect when taken with other drugs was also mentioned by cannabis abusing population interviewed. They mentioned about all kinds of places where people smoke cannabis. Almost everybody mentioned about taking it in groups and

said that these people preferred open spaces at night because of its typical easily identifiable smell and also because it needed things to be prepared. It appeared that quite a number of them, although did not see the drug, were quite familiar with its smell.

Ideas about effects of cannabis on health were quite vague and superficial. Impressions were made mostly on the basis of prevailing idea of its addiction potential and competitive dangers from other drugs of abuse. There were very little influence of known real or imagined physical dangers. Measure of harm was also done on the basis of two other ranking components: (1) chances of discovery by family and (ii) potential for harassment and/or arrest by law enforcing agencies. Similar common beliefs like smoking cannabis may cause tuberculosis were also true for smoking tobacco. The lone medical practitioner was, however, very specific about brain damage and mental illness. During the course of discussion he disclosed that he had undergone a training program on mental health where there was a topic on drug addiction. Some of the participants showed ignorance whether cannabis could cause problems other than health effects. Other comments were more moralistic than thought provoking. The author had an impression that they tried more to impress the author in this regard and were frequently shifting the topic to other drugs of abuse where they had specific things to say.

People had very little idea about the nature of abuse and their effects, and as told earlier, neither had they any transparent idea about products of cannabis and their effects. It has become apparent during the study that people had very little concern about this drug of abuse and also about need for any intervention program. Intervention programs currently available are more oriented to other substances of abuse like opiates. Unlike that for opiate abuse, people conceive cannabis use more as a moral problem than a social, economic or health problem. A general reluctance was noticed to give a thought on this issue and there was a tendency to look down upon the cannabis users. It was most probably due to the general image abusing population had in the society for long. Some important information came out from an abuser participant on the availability of LSD, street and number of selling points for cannabis vending.

In conclusion it may be said that general perceptions of the community about cannabis abuse have not changed with the increase of its abuse prevalence. Their concern about this potentially harmful drug is somewhat vague and perceived need for any intervention program is inconclusive. There is further scope to explore the findings of this brief study.

AN ETHNOGRAPHIC ACCOUNT OF OPIUM CONSUMERS OF RAJASTHAN (INDIA): SOCIO-MEDICAL PERSPECTIVE

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ABSTRACT

This communication gives an ethnographic account of 200 opium users in selected villages of three Western districts in the desert state of Rajasthan. The region is known for its traditional use of raw opium in the form of *amal* or *doda*, due to its climate and difficult living conditions. The ethnographic information suggests that opium use is in many ways integrated into the socio-cultural fabric of the local community. Self-medication with opium mitigates various health problems and the drug is also used to relieve mental distress. Besides these uses for relief of distress, the drug is used recreationally and within settings which facilitate social bonding. The traditional roles ascribed to the use of this intoxicant cannot be dismissed when formulating long-term preventive and control measures.

INTRODUCTION

In the Indian sub-continent there is a long history of the use of cannabis and opium, but society was able to contain the problem through well defined contexts of their usage, and by traditional mechanisms of social control. However, in the 1980s the drug scene in this country changed dramatically with the introduction of heroin, particularly among the more vulnerable sections of the urban population. Heroin use also spread to semi-urban and rural areas. Reacting to these developments, the Government of India promulgated the Narcotic and Psychotropic Substances Act of 1985 to check drug trafficking and the illicit use of opium or its derivatives.

In spite of these stringent legal measures, opium use still remained popular with a section of the rural population in North Western regions of the country, for both therapeutic and hedonistic purposes. The pertinent issue for public health planners and researchers is whether these traditional users would continue to follow the age-old custom of raw opium consumption, or whether there would be a pro-heroin effect[1] as has occurred in other South East Asian countries after their governments adopted stringent legal measures.

The present communication focuses on these traditional users of raw opium and their socio-cultural milieu. It also examines various health issues related to the use of an illegal but socially approved intoxicant.

METHOD

A study was conducted by the Desert Medicine Research Center, Jodhpur under the aegis of the Indian Council of Medical Research, focusing on health care services in desert districts of Rajasthan. The present investigations was part of this broader undertaking. The state of Rajasthan has an area of 342,239 sq.km and a population of 43,880,640 of whom 22,935,895 are males and 20,944,745 are females. This population is spread over 28 administrative districts, of which three representative desert districts were chosen for this study. These districts are Jodhpur, Churu and Barmer. The population of these districts are 2,127,552, 153,940 and 1,433,351, respectively.[2] Each district is divided into *tehsils* (smaller administrative units). One *tehsil* from each district and two villages from each tehsil were selected in such a way that all caste groups were represented. Two villages from each tehsil were selected randomly. Six villages were thus studied in total: Moriya and Chakhoo with a population of 1,813 and 2,555 in Jodhpur; Jinrasar and Dunkar with a population of 1,177 and 1,517 in Churu; and Thob and Sembhara with population of 2,523 and 1,509, respectively, in Barmer.

Two hundred and fifty traditional users of opium were interviewed from 1,800 households in the six villages by snowball technique. A detailed study could be done in 200 opium users only and in each village 30 - 40 opium user were studied. Once a confirmed opium user was contacted he was made the key informant for tracing subsequent opium users in the village. Such information was further confirmed by important persons in the village such as teachers, headmen and health workers. In each village three key informants were located and 18 resource persons were contacted in the six villages.

AREA DESCRIPTION

The state of Rajasthan is situated in the North West border of India. It is flanked by Pakistan on the west and five Indian states on the other sides. It is large and varied in its terrain and human composition (one can find a myriad of socio-cultural variations). The present study was conducted only in the western part of the state. The western zone is sandy and rocky with semi-arid to arid environmental conditions. The rainfall here is extremely scanty; this area forms the "Thar" desert. The people and culture of this area are distinctly different from other parts of Rajasthan. The western region of Rajastan is comprised of 11 administrative districts. The population of the villages are made up of all caste groups based on the Hindu *varna* system (hierarchical social

stratification), as well as other sects of Hindus who do not come within the varna fold. There were also a handful of Muslim families. Besides the main villages there are a few hamlets attached to the villages and locally known as *Dhani*.

THE FINDINGS

The Drug Employed

Opium is commonly known as *amal* in the local dialect. It is available in two forms: the nugget form is called *amal* (yields 9.5 - 14.2% morphine), while the powder form is called *doda* (yields 0.1 - 0.3% of morphine). The *amal* nuggets are first dissolved in water and then the solute is collected in a container through a porous cotton cloth which acts as a filter. The extract is shared by the members of the gathering from the container. In contrast *doda* is mixed with pieces of dried simmering cow or camel dung in a *cheelam* (earthen smoking pipe). At the bottom of the pipe there is a porous cotton plug. The pipe is handed around the gathering. The price of *doda* is less than that of *amal* but at the same time the "kick" is believed to be less strong. The proper section mostly consumed *doda* due to its cheaper cost, but consumption of cheaper quality opium meant taking highly adulterated material, often mixed with *jaggery* and sometimes even with burnt rubber granules.

Supply

The poppies are grown in the south eastern districts of the state but most of the opium comes from the adjoining state of Madhya Pradesh. *Amal* is brought to this area by various peddlers by illegal means.

The Setting Of Opium Consumption

Consumption of *amal* or *doda* appears to be a widespread social phenomenon in the selected area. In the lean months when no agricultural activities are performed, opium consumption becomes a very viable pastime for the youth and for the men as well. Since agriculture remains the principal occupation, the population faces hardship during dry seasons. At this time people deliberately take to opium for a reprieve (however temporary) from the worries and anxieties of drought. Opium consumption usually takes place in gatherings made up of males ranging from 30 to 65 years of age. It was found that all caste groups sit together while taking *amal* and even Muslims were seen to be participating in the gathering. The males would gather to consume *amal* either in one corner of the village, or under the shade of some tree, or near one of their homes.

A Profile Of Opium User And Reasons For Use

Rajputs were the highest consumers (60%) of the total (200) opium users on whom information was obtained. This was followed by the *Meena* (a scheduled tribe) and *Vishnoi*. It was found that 70% of the addicts were between 40 and 60 years of age. Initiation to the consumption of *amal* starts with 10 g/day mostly taken in the late hours of the morning, or late evening. Of 200 subjects, 20 were hard-core users who consumed around 100g *amal* or 250-300g *doda* in a day. It was also noted that users with a long history of consumption did not perform any other activity: when they felt the craving for the drug they desperately searched around the village for opium.

The taste for opium develops from childhood days, as it is customary for mothers in this area to give opium to their children. They justify opium consumption on the pretext that the practice is culturally rooted. Consumption of opium by the young and old in every social gathering is a practice which enhances fellow feelings among members of the community, and it is through social gathering that the child is initiated to the consumption of the intoxicant.

Most of the young opium users started the drug for fun, to enhance their status in the society, or to show their manhood. When they can find no employment, they become more and more dependent on opium. The female opium users either started at the behest of their husbands, or as medication for physical or mental ailments or trauma, and then gradually fell victim to the intoxicant.

Adults of both sexes find opium to be the best way of mitigating various health problems, including chronic cough, diarrhea and various aches and pains. Opium is also used to overcome mental trauma. Sometimes it is prescribed by local doctors for various ailments. Some adult males laid stress on the alleged aphrodisiac quality of the opium and they initially consumed it for that purpose, but finally became addicts. Last, but not least consumption of opium keeps the friendship circle growing and encourages friends to help each other in various circumstances.

What Counted As Deviance

The opium consumers who remained within limits of accepted behavior were considered normal even if they consumed a good amount of opium. It was found that 90% of the traditional users were well accepted in the society and only the remaining 10% were considered to the deviant. Deviant behavior became conspicuous when addicts started selling their goods or property to procure opium, but a certain amount of misbehavior was overlooked. When behavior became frankly unacceptable people were either socially boycotted or taken to the psychiatric hospitals for treatment. In no instance was anyone taken to the police on account of their deviance. Opium users lose out in the social power hierarchy and in the decision-making process of the village community.

DISCUSSION

The present study corroborates the practice of opium use as a culturally accepted behavior in this part of India. The *Vishnois*, in spite of their religious and social taboo, not only consume the intoxicant freely but also trade in it. The Muslims, despite their religious strictures, enjoy the opium freely. The poor, despite their financial constraints continue to take opium due to the patronage of their richer friends who enjoy the intoxicant in their company only. The women of the society unhesitatingly use opium, and no objection is raised by a society in which the status of women is very low, where opium use is generally considered a male domain.

However, the practice has its health and social implications. First, the absence of an adequate health care system in the desert country encourages the therapeutic use of opium for common ailments as well as to overcome the hardship of nature, especially conditions created by the arid climate. The current functional use of crude opium and of other traditional drugs cannot be dismissed when formulating long-term preventive and control measures. Mohan *et al.*[3] in a study in rural areas of Rajasthan observed that even if the therapeutic reasons advanced for the use of these drugs are doubtful, the introduction of health care systems will not automatically discourage the use of traditional drugs. Limitations in the likely efficacy of legal measures are also evident. The Narcotic Drugs and Psychotropic Act, 1985, outlined steps for identification, treatment, education and rehabilitation of addicts, as well as measures for enforcement and control of illicit drug trafficking. The present study did not find any visible impact of the Act on price and availability of raw opium in the region. Even awareness of enhanced penalties under the Act for drug offenses was minimal among the local population and opium users. The effectiveness of legal measures depend both on the activity being controllable, and the characteristics of the population at whom they are directed. Local police showed little interest in taking action against traditional opium users, unless a serious offense had been committed. No pro-heroin effect was noticed in the region at the time of the study, but clandestine illicit brewing of alcohol was reported when there was disruption in the supply and distribution of opium. Such illicit liquor did sometimes result in un-toward social behavior.

This traditional kind of opium use is certainly not benign in all respects. The problem affects those who are vulnerable to associated health problems and psycho-social consequences.

Physical problems are aggravated by the absence of primary health care, and the lack of social support or of a positive community response. Even when a patient is motivated to give up the old habit, the inadequate health and social infrastructure in this region may hinder the process of treatment and recovery. There have been a few attempts to detoxify these patients in short duration camps organized by local voluntary organizations or by local medical colleges.

The opinion of the village community leaders was that the best investment by the government and non-government sectors would be to break the opium habit among those who started using it relatively recently and during, for instance, the last few years. Secondly, preventive measures must be directed towards demand reduction among the young. Adequate general health care and treatment facilities must be provided for opium users at district level hospitals and at primary health centers. The solutions may not fall entirely within the legal or health arena. One has to look at the functional social role played by the use of these traditional drugs in a cultural context and a healthy alternative must be evolved. A final suggestion was that the non-victimization of opium users by law enforcement agencies should continue — it would be very un-helpful to start seeing the user of *amal* or *doda* as a criminal or a dope fiend.

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A STUDY OF BUPRENORPHINE ABUSE IN MADRAS CITY, INDIA[1]

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INTRODUCTION

Injecting drug use, in particular opiates, is increasing in Indian subcontinent (Chowdhuri & Chowdhuri, 1990; Naik et al, 1992) and Manipur in Northeastern India has experienced rapid increase in HIV infection among injecting drug users (Des Jarlais, 1992). During periods of heroin scarcity, heroin users have shifted to easily available buprenorphine, marketed in India since 1987 as an injectable analgesic, and this trend is seen in many places in India including Madras (Strang et al, 1992). Buprenorphine dependence is increasingly seen in injecting drug users both in treatment settings (Lal, 1991; Singh et al, 1992) and among street recruited drug injectors (Kumar et al, 1995). In view of the fact that buprenorphine may emerge as an alternative treatment for opioid dependence (Johnson & Fudala, 1992), it is worthwhile to look at the evolution of buprenorphine abuse, pattern and extent of abuse in natural settings in places where the drug is easily available. Since it is a therapeutic drug, it will be interesting to study the use of buprenorphine by professionals. Also, it is quite likely that the group of buprenorphine users may be different from the heroin users in both sexual and substance use risk behaviors (Kumar et al, 1995) and there is need to study the high risk behavior towards HIV and risk reduction exhibited by buprenorphine users. It will be interesting to study the attitude and perception of the community towards the escalating buprenorphine use.

2. OBJECTIVE

The study has the following objectives:

- To describe the history of buprenorphine epidemic in Madras.
- To assess the socio demographic characteristics of buprenorphine users.
- To assess the pattern of buprenorphine use.
- To assess the extent of buprenorphine use among injecting drug users.

[1] Study supported by a grant from the T. Head and company Inc., 11300 Rockville Pike, Suite 901, Rockville, MD 20852

- To study the transition patterns among drug users.
- To study the therapeutic use of buprenorphine by professionals.
- To study the high risk behavior towards HIV and risk reduction exhibited by buprenorphine users.
- To assess the community's attitude and perception towards escalating buprenorphine use in the community.

3. METHODS

The universe considered for the study is Madras City, a cosmopolitan city and it is the capital of Tamil Nadu. It is situated on the north east end of Tamil Nadu on the coast of Bay of Bengal. It stretches nearly 25.60 kms. long along the Bay coast from Thiruvanmiyur in the South to Thiruvottiyur in the North and runs inland in ragged semi-circular fashion. This irregular shape covers 172 square kilometers.

3.1 Madras City Census Details

Characteristics	Male	Female	Total
Area in square kms			172
No. of occupied residential houses			784,322
No. of household			798,279
Total population (including institutional and homeless population)	1,986,278	1,855,118	3,841,396
Total Literates	1,535,351	1,216,990	2,752,341
Total Population - (0 - 6) years	238,782	229,726	468,508
Scheduled Caste	271,549	258,163	529,712
Scheduled tribe	4,087	3,843	7,930
Total main workers	1,015,704	156,035	1,171,739
Marginal workers	822	501	1,323
Non-workers	969,752	1,696,582	2,668,334

3.2 The Geographical Locations

From this universe the population considered for the study were five geographical locations identified to have high prevalence of drug abuse by earlier studies. These locations were: Royapuram, Vepery, Kodambakkam, St. Thomas Mount and Anna Nagar. In this study, most drug users for the study were recruited from two areas namely Royapuram and Vepery. The following are the details of the two areas obtained from census reports and from the records of the Madras corporation health posts.

Characteristics	Area 1	Area 2
Total population	50,210	28,155
Males	25,786	14,960
Females	24,424	13,195
Children (0 - 6 years)	5,895	2,868
Caste - scheduled caste & tribe	5,985	4,388
No. of households	9,766	5,115
No. of slums	20	2
No. of workers	7,930	8,641
No. of non-workers	35,882	19,517
No. of literates	31,649	21,882
No. of corporation health posts	1	1
No. of schools	13	21
Women's forums	Nil	4

3.3 Data Collection

3.3.1 Users

From these geographical locations, some known buprenorphine users were identified for the study. Using the snowballing technique, other buprenorphine users were identified and recruited for the study. A total number of 100 buprenorphine users were identified and interviewed. In order to collect qualitative and lifestyle data we adopted a number of complementary research techniques: a semi-structured interview schedule; participant observation; focus groups; and in-depth interviews. Respondents for the semi structured interview were obtained by snowballing from known contacts in the targeted locations as mentioned above. Interviews took place in a variety of locations,

settings, including homes of the users. A fieldwork diary was used to collate the observational data. The participant observation was also used to clarify and expand issues that arose from other facets of our work.

3.3.2 Ex-users

Similarly, a number of ex-users were identified from the above location, treatment centers and the narcotics anonymous meeting places and interviewed.

3.3.3 Key Informant Interviews

Also, information was obtained from the key informants like treatment professionals, law enforcement agencies, pharmacists, community workers and family members of the users. The following agencies were contacted for collecting relevant information:

- Deaddiction Center, Institute of Mental Health, Madras.
- Narcotic Intelligence Bureau (NIB).
- Narcotic Control Bureau (NCB).
- Punarjeevan Drug Treatment Center, Madras.
- Society for Aid and Help for Addictive Illness (SAHAI) - Treatment and
- rehabilitation center, Madras.
- Arogyam Counseling and Treatment Center, Madras.
- Anti-Drug Abuse Movement (ADAM), Madras.

3.3.4 Analysis

Each phase of the research was built on and informed by subsequent work, with ongoing ethnographic fieldwork being used to test issues as they evolved. The main approach was inductive analysis. The semi structured data was analyzed for frequency distribution of key variables considered for this study. The qualitative data was collated. The results of the study is summarized below.

4. RESULTS

4.1 Availability Of Buprenorphine

Buprenorphine is legally available in India from 1987 and this drug is marketed in India by two different companies; Tamil Nadu Dadha Pharmaceuticals Ltd., situated in Madras markets buprenorphine as "tidigesic" and Unichem markets the drugs as

"Norphin". Buprenorphine is marketed as analgesic drug and is available as injectable preparation (available as 1 ml and 2 ml ampoules, each ml containing 0.3 mg of buprenorphine). The drug is popularly used in post operative wards, trauma clinics, gynecology departments and effective pain reliever in many clients with serious and intractable pain. Initially the drug was very easily available and the drug is very cheap (1 ml ampoule costs Rs. 5 and 2 ml ampoule costs Rs. 10/-; one US dollar is equal to Indian Rupees Thirty Five); the availability combined with the low cost factor facilitated many drug users to shift from chasing brown sugar (an adultered form of heroin) to injecting buprenorphine. The drug is also available as sublingual tablets in the strength of 0.2 mg per tablet but this sublingual preparation is not popular with physicians as well as drug users. The marketing strategy focuses on selling injectable preparation more than the sublingual preparation. Till the year 1992, there was no rigorous control for procuring this drug and it could be bought from the pharmacies, many a times even without a prescription. The increasing demand for this drug combined with negligible control measures paved the way for some pharmacies making a business out of selling this drug. These pharmacies were well known to the addicts' network and the addicts paid more money to get the drug from the pharmacies without any hassle. As the epidemic of buprenorphine increased in magnitude, media started focusing on this issue. Due to pressure from many quarters, in particular, non governmental agencies working in the field of drug abuse and the media attention, control measures began in the years 1992. The control is perceptible at present in the city of Madras but not in the smaller towns and the rural areas of the Tamil Nadu. Now buprenorphine is bought in the small towns around Madras and brought to the city and sold for a higher cost in the illicit market. It is interesting to note that the drug peddling circuit involved with brown sugar is also employed to sell buprenorphine in the illicit market. Even though the number of pharmacies selling buprenorphine have come down, some pharmacies in certain locations of the city are making huge profits by selling buprenorphine. Addicts interviewed know these pharmacies very well and almost all of them listed the names of the pharmacies and their locations, pharmacies at Richie street, near Star theater and Kodambakkam (near Liberty) were mentioned by everyone.

4.2 History Of Buprenorphine Epidemic

Brown sugar is available in Madras from 1983 and the availability of the drug can be linked to the July 83 ethnic crisis in Sri Lanka. Following the ethnic crisis, a large number of refugees landed in Madras from Jaffna, Sri Lanka. The drug introduced and sold by the Sri Lankan refugee youth soon became an important drug of abuse in Madras. Until 1985, the drug problem was predominantly confined to the college students and money handling youth; in 1985, a gram of brown sugar costed Rs. 40/ and it was sold in doses of 5 and 10 gms. From 1985 onwards this drug abuse spread to the low income groups and the slum dwellers. Also, a change occurred in the marketing strategy as the drug was sold in quantities of 1/4 gm and 1/2 gm, facilitating access to the drug by low income groups. The incidence of drug abuse among slum youth in the

age group 15 - 25 increased dramatically and alarmingly from the year 1985. A stringent law, Narcotics and Psychotrophic Substances Act (NDPS) was enacted in the year 1985 and the enforcement authorities were vested with greater powers to deal with drug traffickers, dealers, pushers and addicts. The concern of the Government was evident in the opening of the Deaddiction Ward at the Institute of Mental Health, Madras in the year 1986. From 1986 onwards many voluntary agencies initiated counseling and treatment services for the drug abusers.

Until the year 1988, most drug users were using brown sugar by chasing (inhaling the vaporized heroin) and the few drug users who injected heroin then were either heavy drug users who have graduated to injecting or drug users from North-Eastern India. In 1988, a significant change occurred. Since brown sugar was increasingly difficult to obtain, the cost of brown sugar was escalating and the cost of a gram's quantity of brown sugar ranged from Rs. 100 to Rs. 200/- and so more number of heroin abusers were looking for substitutes and many people became poly drug users. Prescription drugs like nitrazepam (Dormin or Nitravet), diazepam (Valium or Calmpose) dextropropoxyphene (Proxyvon) were increasingly abused. As this time, some medical practitioners were using buprenorphine injection to treat the agonizing heroin withdrawal symptoms. The practitioners believed that the drug "Buprenorphine" did not have addiction potential and were using the drug liberally. This information that buprenorphine is a good drug to alleviate withdrawal symptoms spread fast among the addicts' network and some of them administered the drug with the help of some friends who had experience in injecting. This led to drug users seeking buprenorphine as a treatment for their dependence; they used it when they wanted to stop the drug. The drug was often sought by drug users at times of street heroin scarcity. Following raids and seizure of drugs from key selling locations, drug users would seek buprenorphine from pharmacies or visit the clinics of doctors prescribing this drug freely. There were instances in which drug users will request some practitioners to prescribe and administer this drug. It is interesting to note that many doctors practicing in the areas like Royapuram and Vepery were educated about the usefulness of this drug for treating withdrawal symptoms by the drug users.

There was a dramatic change in the drug use pattern in Madras City following the assassination of former Prime Minister of India Mr. Rajiv Gandhi at Sri Perumbudur near Madras. Since it was established that Sri Lankan terrorists were involved in the assassination, there was a very heavy crackdown on the Sri Lankan militants living in Tamil Nadu. The result was an acute heroin drought and during that time of acute scarcity and shortage of heroin, a number of brown sugar users shifted to the easily available synthetic opiate preparation, buprenorphine. By then the injectable preparation of buprenorphine was well known to many drug users and they used the drug by needle. For many, this was their first mode of administration by injecting. The transition from brown sugar to buprenorphine was facilitated by the following factors: knowledge that buprenorphine is a good substitute that can effectively control withdrawal symptoms compared to other drugs used to control and alleviate symptoms during abstinence; easy availability of the drug in pharmacies even without a

prescription; the fact that some seasoned medical practitioners were indeed treating their drug abusing clients with buprenorphine; lack of any serious drug control measures for the drug at that time, the relatively lower cost of the drug compared to heroin; and the belief that the drug users were indeed treating their chronic dependency on heroin. It is to be stressed that many drug users seriously believed that the drug is much less harmful as it is pure (comes in ampoule) and there are no legal hassles involved in procuring the drug.

After having been initiated to buprenorphine by needle, many realized that they are only substituting it for heroin. It is not easy to stop buprenorphine after having the drug for few days; they do experience withdrawals symptoms but they are much less agonizing but tend to persist for a long period. Also, the withdrawals may be delayed. The former heroin chasers were now using buprenorphine and injecting the same regularly. While some continued to use buprenorphine, some shifted back to brown sugar when the drug became available again in the illicit market; some used both. As the abuse of buprenorphine escalated among drug users the drug was subjected to stricter drug control at least in Madras and with this the drug became available in the illicit market. An ampoule of 2 ml buprenorphine cost Rs. 40 in the illicit market and even this is cheaper compared to heroin. With the widespread use of buprenorphine in the community, some persons were getting initiated to drugs through buprenorphine. At present there are many current users who are regularly using buprenorphine and are currently dependent on buprenorphine. The current users who are regularly users are of the following types:

- Those who were former heroin users and who shifted to buprenorphine and continue with it.
- Those who were initiated to buprenorphine straight-away and are continuing to abuse it.
- Those who are using heroin and buprenorphine but prefer buprenorphine.
- Those who use both drugs often but prefer heroin.
- Those who use buprenorphine only in times of heroin non-availability.
- Those who were initiated to buprenorphine by physicians for medical reasons (post operative care, trauma pain, surgical clinics, etc.) and continue with it (latrogenic users)

4.3 Extent Of Buprenorphine Abuse

Since the introduction of buprenorphine into the addicts' network, the drug has become a very popular drug among opiate users. That this phenomenon is not confined to only Madras is revealed by the fact that the abuse of buprenorphine has become widespread in India and reports of its abuse is reported and observed in many parts of the country.

Its widespread use is evident in Calcutta, Delhi, Cochin, Trivandrum, Tiruchi, Bombay, Bangalore, Chandigarh and in many other cities and towns of India. The UNDCP report, 1995 indicates that the abuse of this substance is causing concern in Bangladesh and in Sri Lanka. There was a SAARC convention of Buprenorphine in the year 1995, highlighting the importance of this issue.

In Madras, the drug is extensively used by opiate users and this may be certainly to do with many factors described in the above paragraphs, apart from the fact the drug is manufactured and marketed from Madras. Though most opiate users have used buprenorphine there are many who use this drug regularly and prefer it.

To understand the phenomenon of buprenorphine dependence a cohort study of 250 male injecting opiate users were recruited between May 1992 to August 1992 from street outreach for preventive HIV intervention. Baseline assessment on sociodemographics, drug use patterns, and HIV risk behavior was done. Semi-annual follow-up of clients was carried out. After 18 months, follow-up was available for 161 clients on drug use patterns, HIV risk behavior and behavior change. Of the 250 injecting drug users recruited for the study, 241 (96.4%) had been ever users of buprenorphine and 184 of them (73.6%) have used buprenorphine in the past month. Among the 250 injecting drug users 139 of them (55.6%) were preferring heroin as the drug of choice and heroin was their primary drug. 111 of the 250 (44.4%) were primary buprenorphine users and their preferred drug was buprenorphine. After 18 months, follow-up data was available for 161, and in this group, 112 persons are currently dependent on buprenorphine and only 49 are dependent on heroin. This study highlighted the emergence of buprenorphine dependence among injecting drug users in Madras city.

In a public opinion survey conducted as part of a multicentered study on "Drug and Culture in Asian Settings" at Madras (Anthony et al. 1994), buprenorphine was observed as an important drug of abuse in certain geographical locations of the city.

In this study, interviews with key informants of the various agencies working in the field of drug abuse, current opiate users and ex-users, it was established beyond doubt this drug is one of the most important drugs of abuse and its use is escalating among drug users of Madras.

4.4 Transition Patterns Of Mode Of Administration

The usual transition patterns observed are:

Chasing heroin - Injecting Buprenorphine - Injecting heroin and buprenorphine - prefers buprenorphine

Chasing heroin - Injecting Buprenorphine - Injecting heroin and buprenorphine - prefers heroin

Chasing heroin - Injecting Buprenorphine - Continue with buprenorphine

Chasing heroin - Injecting Buprenorphine - Injecting heroin

Chasing heroin - Injecting heroin

Chasing heroin - Injecting Buprenorphine - chasing heroin

Chasing heroin - Injecting Buprenorphine and heroin - Chasing heroin

Injecting Buprenorphine - Continue injecting buprenorphine

Injecting Buprenorphine - Injecting heroin

The important observation is the fact that for majority of users, transmission to injecting was indeed facilitated by buprenorphine.

4.5 Socio Demographic Characteristics Of Drug Users

The majority of buprenorphine users observed and interviewed were young males belonging to the low income groups. Majority of them were between the age group 25 - 34. Most were Hindus or Christians and only a small minority were illiterates. About two thirds were unmarried and only a third of them were regularly employed. Majority of the drug users interviewed were from a geographical area called Royapuram.

Demographic Characteristics Of Heroin And Buprenorphine Injectors

Characteristic	Buprenorphine Injectors (N = 100)
Age in years	
18 - 24	18
25 - 34	59
35+	23
Gender	
Male	100
Female	-
Religion	
Hindu	46
Christian	42
Muslim & Others	12
Education	
Illiterate	12
Middle School	43
High School	34
Collegiate Education & professionals	11
Marital Status	
Unmarried	64
Married	36
Current full time employment	
Yes	34
No	66
Geographical Location	
Periamet	26
Royapuram	59
Others	15

4.6 Pattern Of Use

The history of arrests and imprisonment were almost negligible for the buprenorphine users. Majority of buprenorphine users said that the police harassment was more when they were in possession of heroin than buprenorphine. Only a few cops with knowledge of the fact that buprenorphine is also emerging as an important drug of

abuse did not take kind to possession of buprenorphine. Some addicts even said that they could convince the police that this is a drug (medicine) used by them for treatment of their addiction. Among the narcotic seizures made periodically by the narcotic wing, buprenorphine does not figure. About a half of the buprenorphine users misused alcohol and cannabis. Alcohol and cannabis abuse was attributed mainly to the desire for a high as in general they did not experience the high with buprenorphine alone. Use of cannabis and alcohol was also attributed to their sexually stimulating effects and many reported using them for sexual arousal and to increase their sexual performance. The misuse of other drugs like injectable diazepam (Inj. Calmpose) and diphenhydramine (Inj. Avil) were very common among the buprenorphine users. The buprenorphine users have learnt over the years that the drug by itself is good in controlling the craving for opiates and one is able to function well with the drug. It is reported by many that the drug by itself does not produce a high and it only helps them to normalize. Since many desire and long for a high, they have learnt that a combination of drugs help them to achieve the desired effect. The drugs combined are popularly called CAT (Calmpose, Avil and Tidigesic). The drug users generally buy an ampoule of each and the combination of these drugs yielding 6 ml is shared by two or taken by the same individual twice, 3 ml. each time. Another used in combination, though not frequently is Inj. Promethazine (Inj. Phenargan). The drugs like Avil and phenargan can be bought in the pharmacies for the actual cost and they are given in most pharmacies even without a prescription. Buying Inj. Calmpose without a prescription may be a problem but a number of pharmacies issue the drug without insisting on a prescription. The syringes used are plastic disposable syringes and these are usually reused by the individuals. Syringe availability is not restricted by any control and syringes can be bought without any problem from any pharmacy for a very low cost (Rs. 31). Usually 2 ml and 5 ml syringes are only available and the 5 ml syringe with 22 to 24 size disposable needle is preferred by the addicts in general. The buprenorphine users usually buy the combination of calmpose, avil, tidigesic and syringe (CATS) from the pharmacy for a reasonable cost of Rs. 60/ (About two US dollars).

Drug Use Related Characteristics Of Buprenorphine Injectors

Characteristic	Buprenorphine Injectors (N = 100)
Arrested	
Yes	6
No	94
Prison	
Yes	1
No	99
Previous Treatment	
Yes	34
No	66
Alcohol Use (past 30 days)	
No misuse	48
1 - 7/week	41
Daily	11
Cannabis Use (past 30 days)	
No misuse	58
1 - 7/week	24
Daily	18
Other Injectable Drug Use (past 30 days)	
No misuse	13
1 - 7/week	35
Daily	52

4.7 Description Of Daily Life Of Buprenorphine Users

Locating and purchasing drugs: Unlike heroin users who spend many hours of each day locating and purchasing the illicit drug and hence lead a busy and stressful life, the buprenorphine users spend much less time in procuring their drug. The heroin users have to be in search of the elusive dealer and have a tendency to hang on with the dealer. Even on a good day, many hours are spent chasing the drug or else waiting around for the dealer to materialize.

4.8 Raising Money For Illicit Drugs

Most heroin users required considerable amount of money to support their habit and they have to be extremely resourceful to raise the revenue for drugs. Most were opportunistic, moving between the worlds of casual labor, petty crime and user-dealing. Similarly, heroin users would exchange goods (stolen and personal and family possessions) for drugs and it is common practice for the dealers to accept the goods in exchange for drugs. The buprenorphine users were less stressed as the money required to buy the drug was relatively small and manageable by methods other than that indulged by heroin users. The pharmacies selling the drug required them to pay cash and would not accept goods. A number of buprenorphine users were engaged in gainful employment at least as part time workers and these users preferred less risky means of raising money for drugs. But once buprenorphine use became regular and habitual, few were able to earn solely by legitimate means. They indulged in petty crime or drug dealing intermittently to support their habit. Another means of supporting the habit was by scoring for others. By this method, the person collected money in advance from other persons, who either do not want to be identified or do not want to spend time traveling to the selling place or even fear of being apprehended (in the past few years the control measures have been tightened), and bought drugs and gave others. In this he gains usually by getting his drug free. There were a very small number of persons who purchased the drug in bulk quantities from the neighboring state of Andha Paradesh and sell it to others for a profit.

Unlike to heroin user the lifestyle of a buprenorphine user is not fraught with great dangers and pitfalls. For a majority of buprenorphine users, avoiding apprehension and arrest by the police is not a daily preoccupation.

4.9 Social Networks And Families Of Buprenorphine Users

The shape of networks is influenced by both the drug type and the setting or geographical area. The heroin networks in Madras are more cohesive and functionally reinforcing. Most heroin users were in touch with other drug users, at least for purely functional reasons, such as procurement of the illicit substance. Their network was also larger in size and there were some dense relationships. Even though the ties and bondage changed over time, at any point of time, the heroin users had at least one or more drug user with whom he had a reciprocal relationship. In contrast, the network of buprenorphine users was relatively smaller, and some were even isolated users. Most persons had only one or two drug using persons in their personal network.

Most drug users lived with the families and in reality, most drug users were not homeless. The mother or sister and even the spouse were always supportive of the drug user and family ties continued in spite heavy drug use. Whereas heroin was administered usually outside home settings, a number of buprenorphine users did the drug at home. The family members were not very averse of former heroin users using

buprenorphine at home as they also felt that the buprenorphine users were less demanding and did not cause severe financial burden to the family.

4.10 Marginalization Of Drug Injectors

The buprenorphine users did not experience the same kind of stigmatization or marginalization compared to heroin users. In view of the fact they were much less demanding and had indulged in less criminal acts to procure their drug, they were not ostracized much by the community.

4.11 High Risk Behavior Towards HIV Infection Of Buprenorphine Users

4.11.1 Injecting Drug Risk Behavior

Injecting Risk Behavior Of Buprenorphine Injectors

Variable	Buprenorphine Injectors (N = 100)
Needle Use	
1 - 6/week	11
Daily users	89
Needle Use frequency among daily users	
1 - 3	75
4 and above	14
Sharing Needle	
No sharing	44
Sharing	56
Go to shooting places	
Yes	22
No	78

Majority of buprenorphine abusers interviewed were daily users and in this group majority were injecting at a frequency of 1 - 3 times daily. Almost half of the interviewed did not share their needles and about three quarters of them did not go to shooting locations.

4.11.1.1 Frequency Of Injection

It can be said that the injection risk behavior of buprenorphine injectors was different from that of the heroin users. Most persons interviewed reported that buprenorphine's

action lasts longer and they needed the drug less frequently. People who have used both these drugs clearly indicated that when they inject heroin it acts for only 4 - 6 hours and they needed to inject it frequently to be free from withdrawal symptoms. Since buprenorphine's action lasts longer they did not feel the need to inject frequently. Most people were satisfied with about 4 to 8 ml of buprenorphine and only a few used a quantity more than this.

4.11.1.2 Withdrawal Symptoms

The buprenorphine users did not experience agonizing withdrawal symptoms and there was no greater urgency and desperation in obtaining and using the drug during withdrawal states. Interviewees expressed that heroin withdrawal is a desperate state and the users did not bother about safe practices, safe settings during such states and were indeed taking more risk at that time. Sharing occurred with strangers and in common locations like the dealer's place. Since the abstinent symptoms are not very bothersome, the buprenorphine users were in a better mental set and did not resort to very risky behavior. The withdrawal symptoms were not severe and also delayed. The craving was also less severe compared to heroin. None of the buprenorphine users reported unbearable withdrawal symptoms. Many buprenorphine users planned well and stored buprenorphine for further use thus avoiding the unnecessary search in the mornings.

4.11.1.3 Sharing Of Needles

About a half of the interviewed did not share the drug with others. Sharing occurred in the following settings: drug users have learnt that the drug by itself did not provide them with the desired high and hence they administer a combination of calmpose (diazepam), avil (diphenhydramine) and tidigesic (buprenorphine). Each ampoule is 2 ml and users take 1 ml from each ampoule and inject. Those who do not share draw the remaining into the syringe and keep it for use later, and the others share the remaining with another user. At times two persons join together and pool in the money and buy the drugs and share. Usually for the buprenorphine users, if sharing occurs, it is restricted to two people. On the contrary, sharing was reported to be very frequent for heroin users. The factors facilitating sharing among the heroin users include the following: drug users pool in money and buy the drug and the drug thus purchased is cooked and the common solution is divided usually by "frontloading" by the heroin users. The average size of the sharing group is about 4 to 5; sharing also occurs in desperate drug withdrawal states and sharing also occurs in dealers place.

4.11.1.4 Indirect Sharing

The drugs tidigesic (buprenorphine), avil and calmpose are available as ampoules. During interview with users it was revealed that even though the users may not share the needles, they frequently permit their using friend to insert his needle into the same ampoule and draw his quantity of the drug. Indirect sharing was more common among heroin users and those who used heroin previously or currently reported that sharing of cotton swabs used as filters was very common. Also, they dipped their respective syringes into the common solution in the common bottle cap or the spoon used to cook the drug. The drug was shared by using the technique "frontloading".

4.11.1.5 Common Shooting Locations

The buprenorphine users do not usually take the drug in the chaotic street-scenes and the purchasing venues do not facilitate sharing practices. The heroin users purchased the drug in the dealer's places and it is also the place where many drug users congregate to use the drug. The setting encourages needle sharing. There are also some common shooting locations like abandoned buildings, public places and public toilets where drug users gather to shoot drugs and these settings certainly influence risk behavior. The buprenorphine users do not frequent these common shooting locations often and those who report doing so use the public toilets as it offers them the privacy to use the drug than any other location mentioned above.

4.11.1.6 Intoxication

Whereas heroin use led to intoxication many a times, the users did not report getting "knocked off" by the drug buprenorphine. There were recollections of sharing experiences while intoxicated with heroin and such incidents were not reported under the influence of buprenorphine. On the other hand, the buprenorphine users reported risky sexual behavior (unprotected sex with commercial sex worker) under the intoxicated effect of alcohol.

4.11.2 Sex Risk Behavior

Sex Related Risk Behavior And Buprenorphine Injectors

Variable	Buprenorphine Injectors (N = 100)
Sex partners (past one year)	
No sex	19
One partner	35
2+ partners	46
Commercial Sex (past one year)	
Yes	31
No	69
H/O STD infection (past one year)	
Yes	30
No	70

About half of the buprenorphine users had sex with more than 2 partners in the past one year and a third of them had sex with commercial sex workers. A third of them had a history of STD infection in the past one year.

Whereas the users reported lack of interest in sex while using heroin, the sexual libido and interest was preserved while using buprenorphine. During heroin use, the preoccupation was in procuring and using the drug and most time was spent in search of the drug or under the influence of the drug. The buprenorphine users spent much less time in search of the drug enabling them to focus on other pleasures of life. Also, the buprenorphine users abused cannabis and alcohol frequently; cannabis was believed to increase their sexual desire and prolong their performance; alcohol indulgence was reported to facilitate sex by removing the inhibitions. Users reported high risk behavior like commercial sex and unprotected sex under the influence of alcohol. They reported alcohol use before many sexual encounters. Some reported risky behavior under intoxicated states.

4.12. Risk Reduction Behavior

Risk Reduction Behavior Of Buprenorphine Injectors

Variable	Buprenorphine Injectors (N = 100)
Use of bleach among those who share	
Use bleach	18
No use of bleach	41
Attendance at Outreach program	
Never attended	46
Ever attended	38
Very often	16
Condom use during the last sexual act	
Yes	28
No	53
NA	19

4.12.1 Decontamination Of Syringe

Many buprenorphine users did not share the syringes and among those who share use of bleach is uncommon. The reasons are many including lack of knowledge about bleach and the belief that water is enough to clean the syringe. The sophisticated among the users used distilled water and some with knowledge about bleach hesitated to use it fearing adverse effects. Most users reported using water to clean their syringe before using.

4.12.2 Attendance At Outreach Program

About half of the buprenorphine users have not attended the outreach program and only a small minority attend the outreach regularly. Bleach use is promoted in the outreach and this is one of the reasons why many buprenorphine users do not know about this. The users were also not attending the needle exchange sites.

4.12.3 Protective Sexual Behavior

Only a fourth of the buprenorphine users indulged in protective sexual behavior.

Buprenorphine users were not accessing available outreach services and they believed that they did not require the services. The users stated that buprenorphine use itself

was an attempt at risk reduction and since the emphasis in the outreach programs is on bleach use and preventing needle sharing and facilitating attendance at needle exchange sites, the buprenorphine users did not find the program personally useful for them. The program content of the interventions were most suitable for the heroin users and can be adopted to their life styles and were not designed to suit the life style of buprenorphine users.

The life style and coping strategies of the buprenorphine users were assessed with a view to ascertain the type of interventions that will be suitable for them. In contrast to be heroin users who spent almost all the time in drug related activities, the buprenorphine users were able to have other interests and avocations. They were attending to some jobs, regular or part time. They lived with the families and had a close family member in their personal network. The size of drug network was very small and many of them had non using persons in their network. The drug network was less cohesive and binding; their relationship with other drug users was also less intense. A significant number of buprenorphine users preferred to use the drug alone and some remained secretive about their drug use. It was indeed difficult to identify some of the lone users. Many buprenorphine users were reluctant to seek the help of self help groups like narcotics anonymous. The treatment seeking behavior of the buprenorphine users was also different in the sense that many did not believe that they required treatment for their dependence. The risk perception of buprenorphine use was also very less and the users believed that the drug is not harmful to their health as it is a medicinal drug.

4.13 AIDS Knowledge And Related Issues

The media in Madras has been focusing on the issue of AIDS in the past few years rigorously and this combined with the fact there has been some aggressive AIDS campaigns carried out by the voluntary organizations, the public in general are aware of AIDS and knowledgeable about it. The buprenorphine users reported that they know about AIDS and its transmission but did not consider themselves at risk towards acquiring HIV infection. They were not sharing the needles often and believed that they were practicing harm reduction strategies. The sexual behavior was not assigned much importance by the users, even though they indulged in unprotective unsafe sexual practices often, particularly, under the influence of alcohol and/or cannabis. A study on the street recruited injecting drug users revealed that the HIV seroprevalence rate among heroin users was 19.5% and 16.5% for the buprenorphine users (Kumar et al, 1995). It is to be studies in detail whether the two groups on fact have different risk practices and behavior.

5. KEY RESEARCH QUESTIONS

A number of key research questions can be identified for future considerations:

- Is choice of the route of administration influenced by availability of injectable preparations? How does the context influence initial choice of administration, and possible subsequent transitions?
- Can the choice of buprenorphine by opiate users be described as an attempt at harm reduction?
- How much does the choice of the drug signify a change in risk behavior?
- Heroin injectors and buprenorphine injectors: do they differ in their behavioral characteristics? Do they require different intervention strategies?
- What are the long term effects of buprenorphine use and how do they compare to long term use of heroin?
- Is there any difference in the progression of HIV infection in the two groups: heroin injectors and buprenorphine injectors?
- Are buprenorphine users "health conscious drug users"? Are transitions reversible? Is it possible to revert them to sublingual use?

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HIV SEXUAL AND SUBSTANCE USE RISK BEHAVIORS AMONG INJECTING OPIATE USERS IN A TREATMENT PROGRAM

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INTRODUCTION

Injecting drug use, in particular opiates, is increasing in the Indian subcontinent (Chowdhuri & Chowdhuri, 1990; Sarkar et al, 1992; Kumar & Daniels, 1994; NACO report, 1996) and Manipur in Northeastern India has experienced rapid increase in HIV infection among injecting drug users (Des Jarlais, 1995). During periods of heroin scarcity, heroin users have shifted to easily available buprenorphine, marketed in India since 1987 as an injectable analgesic, and this trend is seen in many places in India including Madras (Strang et al, 1992). Buprenorphine dependence is increasingly seen in injecting drug users both in treatment settings (Lal, 1991; Singh et al, 1992) and among street recruited drug injectors (Kumar et al, 1995). In view of the fact that buprenorphine may be approved as a drug of treatment for heroin dependence (NIDA monograph 121, 1992), it is worthwhile to look at the risk behavior of buprenorphine users. Also, it is quite likely that the group of buprenorphine users may be different from the heroin users in both sexual and substance use risk behaviors (Kumar et al, 1995). The present study focuses on the comparative analysis of HIV sexual and substance use risk behaviors among injecting heroin and buprenorphine users in treatment programs.

OBJECTIVES

To compare the socio demographic characteristics and the drug use pattern among the injecting heroin users and injecting buprenorphine users.
To compare the HIV serostatus among the injecting heroin users and injecting buprenorphine users.
To compare the HIV sexual and substance use risk behaviors among injecting heroin users and injecting buprenorphine users.

METHODS

The sample was drawn from a treatment center (Punarjeevan Drug Treatment Center) at Madras. The treatment center is a premier center for treatment of drug dependence at Madras and attracts clients who are predominantly injecting drug users. A well established outreach team of the center serves an important referral source for the

clinic. On an average, about 100 injecting drug users are registered every month at the clinic.

A consecutive sample of 100 injecting heroin users and a consecutive sample of 100 injecting buprenorphine users were recruited for the present study from September 1995 through November 1995. The objective of the baseline screening was to identify at least 100 each of heroin and buprenorphine injectors who would consent to enrollment in a cohort for a longitudinal study of HIV risk behavior, risk reduction, seroconversion and progression of HIV infection. The cohorts are being followed up and the present report is limited to the baseline assessment at intake and a comparative analysis.

The following inclusion and exclusion criteria were employed to recruit injecting heroin and buprenorphine users:

Injecting Heroin Users
Inclusion criteria: Should be currently injecting heroin and preferring heroin.
Exclusion criteria: Uncooperative and psychotic persons. Persons residing outside Madras.

Injecting buprenorphine users
Inclusion criteria: Should be currently injecting buprenorphine and preferring buprenorphine.
Exclusion criteria: Uncooperative and psychotic persons. Persons residing outside Madras.

After recruitment, the participants were explained about the study and an informed consent was obtained from them for participation in the study. The participants were all given inpatient treatment and no cash incentive was offered. At baseline interview a structured interview schedule was administered by two experienced interviewers (the first and second authors). The structured interview schedule developed for the present study elicits the following information: socio-demographics; drug use pattern; substance use risk behavior; sexual risk behavior; and risk reduction behavior. Interviews were tape recorded using microcasettes. The interview schedules were administered after establishing adequate rapport with the participants.

Upon completion of the baseline assessment, the participants were given pre-test counseling and encouraged to undergo voluntary HIV testing. The blood was drawn by a phlebotomist and sent for HIV antibody testing. The results were given to the patients with post test counseling. The serum specimens were assayed for antibody to HIV-1 using standardized techniques: ELISA and Western blot. Two consecutively reactive ELISA specimens were assayed by Western blot. A positive western blot was defined as a band at p24 or p31 and either gp41 or gp > 110. No bands or a single p15 or p17 was defined as negative; any bands other than those meeting the criteria for positive test were considered equivocal. Participants were informed that interview and test data

would be held in strict confidence and no information on any individual would be released without the individual's permission.

DATA ANALYSIS

For the data presented here, frequency distributions of study variables were generated for the two groups, namely heroin injectors and buprenorphine injectors. Odds ratio, chi-square and Fisher's exact test were used to guide interpretation.

RESULTS

Of the 100 heroin injectors, 78 consented for HIV antibody testing and among the 100 buprenorphine injectors 86 consented for testing. The HIV antibody testing was done with pre and post test counseling for the consenting 78 heroin injectors and 86 buprenorphine injectors. 14 of the 78 heroin injectors were HIV +ve and 13 of the 86 buprenorphine injectors were HIV +ve. The seroprevalence rates for the heroin and buprenorphine injectors were 17.9% and 15.1% respectively and comparison of the serostatus of the two groups (**Table 1**) revealed no statistically significant difference (O.R. 1.23; 95% confidence limits 0.5, 3.03).

Table 2 compares the socio demographic characteristics of the heroin and buprenorphine injectors. The two groups did not differ in age distribution, gender, religion, education, marital status and current employment. They differed only in their places of residence as majority of heroin users in treatment program came from Vepery and majority of buprenorphine users were from Royapuram and this may be to do with the availability of drugs in these geographical locations.

The two groups were studied for drug related characteristics like arrests and imprisonment, previous history of treatment for drug abuse; past 30 days alcohol misuse, cannabis abuse and other injectable drugs (e.g., diazepam, avil and pentazocine) use (**Table 3**). There was no statistically significant difference between the two groups for arrests and imprisonment and cannabis abuse. Compared to the heroin injectors, the buprenorphine injectors were misusing alcohol ($p < 0.005$) and abusing other injectable drugs, in particular, diazepam and avil ($p < 0.001$). The heroin injectors had more often been in treatment programs compared to the other group ($p < 0.001$).

The drug injectors were assessed for injection related risk behavior and comparison was made for the past 30 days behavior (**Table 4**). Majority of the heroin and buprenorphine injectors in treatment were daily needle users and among the daily needle users the heroin injectors inject more frequently ($p < 0.005$) than the buprenorphine injectors. Sharing of needles were more among the heroin injectors ($p < 0.01$) and going to shooting locations was more frequently observed among the heroin group compared to buprenorphine injectors.

Sex related risk behavior was also compared among the two groups and there was no statistically significant difference between them for number of sex partners, anal sex and sex with commercial sex workers in the past one year. STD infection reported for the past year was more among the buprenorphine injectors compared to the heroin group ($p < 0.05$).

A comparative analysis was done for risk reduction behaviors like use of bleach to decontaminate the syringe and the needle in the past month among those who share the needles, attending outreach programs for drug users aimed at HIV risk reduction in two geographical locations namely Vepery and Royapuram, and condom use during the last sexual act. Use of bleach to decontaminate was more often reported by heroin injectors ($p < 0.01$), and accessing outreach services for drug users was found more often among the heroin injectors ($p < 0.05$). There was no significant difference between the two groups for reported condom use during the last sexual act.

DISCUSSION

In India, where injectable buprenorphine is available since 1987, a number of opiate users are dependent on injectable buprenorphine (Chowdhury & Chowdhury, 1990; Kumar et al, 1995) and this group needs to be assessed for HIV risk behavior to design specific interventions for them. This study is an attempt in that direction and compared the heroin injectors and buprenorphine injectors in treatment program for HIV risk behavior and risk reduction. The two groups were comparable for demographic characteristics and they differed only in their geographical location. The reason for the difference is accounted by the differential availability of drugs in the above areas. Buprenorphine is relatively cheaper (Rs. Eight per 2 ml ampoule - less than a quarter dollar)and is available on prescription and in illicit market for a cost of Rs. Forty per 2 ml ampoule (about a dollar). The availability of this drug is greater in the area Royapuram and hence more users are from that location.

Heroin injectors report more injection risk behavior like frequency of injecting and sharing needles and buprenorphine injectors report more STD infection in the past year. Alcohol, a disinhibiting drug is more often misused by the buprenorphine users and reports on the role of alcohol in unsafe sex are available (Leigh, 1990). Buprenorphine users abuse avil and diazepam, in addition, and usually they administer a combination of the above three drugs. Both the group indulge in unprotected sex and the reported use of condoms is very low. It is often reported in the literature that sex related risk behavior is difficult to change. While exhibiting greater injection risk behavior, the heroin injectors practice HIV risk reduction more often. They decontaminate their equipments more often with bleach and attend and access outreach programs. Though the outreach programs are available in both geographical locations, the buprenorphine

users do not use the services. Perhaps, they do not perceive risk compared to the heroin users and this aspect needs to be assessed. It is important that the buprenorphine injectors perceive HIV threat and access services, otherwise the possibility of escalation of HIV infection among them is greater. At baseline, they have a seroprevalence rate equal to heroin injectors and even though they exhibit less risky injection risk behavior, that advantage will be nullified by their sexual risk behavior and not using available services. It is interesting to note that, one of main reasons for staying with buprenorphine is the belief that it is less harmful compared to heroin but this belief also appears to make them believe that they are not at greater risk for HIV infection and hence they do not seek help towards that objective. The buprenorphine users have thus to be encouraged and facilitated to seek HIV intervention services for drug users. The heroin users appear to perceive risk and they access both outreach programs and treatment facilities and this risk reduction approach needs to be strengthened and maintained. It is equally important that treatment programs address the issue of HIV risk reduction, as there is evidence that not much is done in that direction in many treatment settings. Both the groups have shown no risk reduction in sex related risk behavior and this needs to be addressed vigorously. Alcohol use among buprenorphine users is another issue requiring consideration and its specific relationship to risky behavior, in particular, sex related risk behavior has to be studied.

LIMITATIONS AND SUGGESTIONS

The analysis for this presentation is univariate and multivariate analysis will be done. The study is limited to persons in treatment and hence cannot be generalized. At the same time, the similarities between the findings from an earlier study done with street recruited drug users (Kumar et al, 1995) indicate the importance of utilizing the findings for HIV interventions. The study is the baseline assessment in a cohort study of drug users who will be followed for behavior change over a period of time and it will be worthwhile to formulate interventions based on present findings and study and evaluate the impact on them with both self reported behavior and biological measures like seroconversion.

CONCLUSION

It appears that buprenorphine use by opiate users is an attempt at harm reduction and indeed, the injection related risk behavior is more in the heroin users compared to the buprenorphine users. The misuse of alcohol and other injectable drugs and past history of STD infection are more among the buprenorphine users and this requires further in-depth study. Whereas the heroin users access both treatment programs and outreach services more, there is an urgent need to educate and make the buprenorphine users perceive the HIV threat and facilitate their access to HIV intervention, lest the advantage of less risky injection practices will be nullified.

Table 1: HIV Serostatus Of Heroin And Buprenorphine Injectors

	Heroin Injectors	Buprenorphine Injectors
HIV +ve	14	13
HIV -ve	64	73

O.R. = 1.23 (95% confidence interval 0.5, 3.03)

Table 2: Demographic Characteristics Of Heroin And Buprenorphine Injectors

Characteristic	Heroin Injectors N=100	Buprenorphine Injectors N=100	p value (chi square)
Age in years			
18-24	12	18	N.S.
25-34	57	59	
35+	31	23	
Gender			
Male	98	100	N.S.
Female	2	-	
Religion			
Hindu	41	46	N.S.
Christian	51	42	
Muslim & Others	8	12	
Education			
Illiterate	16	12	N.S.
Middle School	48	43	
High School	36	45	
Marital status			
Unmarried	62	64	N.S.
Married	38	36	
Current employment			
Yes	28	34	N.S.
No	72	66	
Geographical location			
Periamet	52	16	p< 0.005
Royapuram	28	59	
Others	20	25	

Table 3: Drug Use Related Characteristics Of Heroin And Buprenorphine Injectors

Characteristic	Heroin Injectors N=100	Buprenorphine Injectors N=100	p value (chi square)
Arrested			
Yes	12	6	N.S.
No	88	94	
Prison			
Yes	4	1	N.S.
No	96	99	
Previous treatment			
Yes	68	34	p < 0.001
No	32	66	
Alcohol use (past 30 days)			
No misuse	72	48	p < 0.005
1-7 / week	23	41	
Daily	5	11	
Cannabis use			
No misuse	65	58	N.S.
1-7 / week	21	24	
Daily	14	18	
Other injectable drugs use (past 30 days)			
No misuse	44	13	p < 0.001
1-7 / week	38	35	
Daily	18	52	

Table 4: Injecting Risk Behavior Of Heroin And Buprenorphine Injectors

Characteristic	Heroin Injectors N=100	Buprenorphine Injectors N=100	p value (chi square)
Needle use			
1 - / week	5	11	N.S.
Daily users	95	89	
Needle use frequency among daily users			
1 - 3	61	75	p < 0.005
4 & above	34	14	
Sharing needle			
No sharing	26	44	p < 0.01
Sharing	74	56	
Go to shooting places			
Yes	39	22	P < 0.01
No	61	78	

Table 5: Sex Related Risk Behavior Among Heroin And Buprenorphine Injectors

Characteristic	Heroin Injectors N=100	Buprenorphine Injectors N=100	p value (chi square)
Sex partners (past one year)			
No sex	24	19	N.S.
One partner	40	35	
2+ partners	36	46	
Commercial Sex (past one year)			
Yes	21	31	N.S.
No	79	69	
H/O STD infection (past one year)			
Yes	18	30	p < 0.05
No	82	70	

Table 6: Risk Reduction Behavior Of Heroin Injectors And Buprenorphine Injectors

Characteristic	Heroin Injectors N=100	Buprenorphine Injectors N=100	p value (chi square)
Use of bleach among those who share			
Use bleach	39	18	p < 0.01
No use of bleach	35	41	
Attendance at outreach program			
Never attended	32	46	p < 0.05
Ever attended	36	38	
Very often	32	16	
Condom use during the last sexual act			
Yes	23	28	N.S.
No	53	53	
NA	24	19	

AN ETHNOGRAPHIC STUDY OF CHARAS (CANNABIS) USE AMONG TRUCK DRIVERS IN PAKISTAN

Kamran Niaz *Bushra Niaz* *Waheed Khattak*
Nadeem Ur Rehman *Jehanzeb Khan* *Salman Ul Hasan*

INTRODUCTION

The idea to conduct an ethnographic study on cannabis (charas) use among truck drivers in Pakistan was born out of discussions at one of the meetings of the Asian Multicity Epidemiology Study Group. While discussing drug use among transport workers, it was mentioned that in Pakistan anecdotal information indicated charas use among a large majority of public transport drivers and long haul truckers while driving. It was reported that they use cannabis to relax during the long and monotonous spells of driving. This was found to be strange for some participants who wondered how a truck driver can drive under the influence of cannabis (charas). Also this pattern of drug use was found to be different from other parts of the world where long haul truckers may use stimulants like amphetamines to remain awake and alert while driving.

Further discussions on this phenomenon and the idea to conduct a study were held with Mr. Nicholas Kozel from the National Institute on Drug Abuse, and Dr. Alfred Pach of the Emory University School of Medicine, Atlanta, Georgia. Rather it was the persistent nudging of Dr. Pach and later Dr. Agar (who had authored a book on drug use among truck drivers in the USA) which led to the materialization of this study. This study was finally supported under the Community Epidemiology Work Group, by the National Institute of Drug Abuse (NIDA).

1.1 Purpose Of The Study

The purpose of this ethnographic study was to look into,

- the drug use patterns especially charas smoking among the long haul truckers
- the social and demographic profile of the target group
- their life pattern while on the road and off duty
- any special characteristics and patterns related to their profession

1.2. The Team

The project team essentially comprised of six people. The principle investigators were Kamran Niaz and Nadeem Ur Rehman, consultants working with the Integrated Drug Demand Reduction Project (IDDRP), a United Nations International Drug Control Program (UNDCP) sponsored project in Pakistan. Mrs. Bushra Niaz, a rural sociologist worked as the Associate Researcher in the team. The outreach workers who assisted in the field work and at times acted as interpreters during the interviews were assisted in the field work and at times acted as interpreters during the interviews were Mr. Jehanzeb Khan previously working with the UNDCP's Afghanistan Project, and currently coordinating a Government of North West Frontier Province (NWFP) Project for the rehabilitation of street drug addicts, and Mr. Waheed Khattak, who works for the Commissionarate of Afghan Refugees in Peshawar. Mr. Salman Ul Hasan, from the Drug Abuse Prevention Resource Center, Islamabad, provided the administrative support and backstopping during the field work, and statistical analysis of the data.

1.3. Methodology

1.3.1 Questionnaire Design

Initially a questionnaire covering the different aspects to be assessed was designed in English. Later this was translated into Urdu, and pretested with four truck drivers, two in Rawalpindi and two in Peshawar. In light of the responses received during the pretest and feedback given by Dr. Pach on the questionnaire, it was modified and made ready for use. The questionnaire consisted primarily of open ended questions and it its final application in the field, most parts of it served as interview guide.

1.3.2 Selection Of The Respondents And Field Work

The outreach workers of the team gathered the preliminary information regarding the major truck stands in and around Peshawar. Through introductions from their own contacts / social network, they then visited these truck stands and talked with the managers of goods transport companies. After explaining the purpose of the study, they gathered information about the availability of truck drivers for interviews, the possible timings and places to conduct these interviews. Most managers (since given a reference) were very forthcoming in their support and said that they would help in referring the drivers for interviews whenever the team was there.

Once the team reached the locations, the local contact person was sought, he then asked for the drivers who were around, explaining to them the purpose (as well as assuring that we were harmless people), the contact person asked if he (the driver) wished to be interviewed. Those consenting were then interviewed at a scheduled place within the location. For example during our interviews in the truck stand in Peshawar, the

interviews were conducted in the go down (warehouse) of the company, sitting on or around piles of cartons. The outreach workers also facilitated as interpreters where the need was felt during the interviews. During the time we did not have any truck driver to interview, and later, after the interviews we spent considerable time sitting and chatting idly with the truck drivers and manager/s of the stand. This served as the basis for our informal focus group discussions.

The field work in NWFP lasted for almost 7 days while another couple of days were spent in Rawalpindi. The main interviews with the truck drivers were conducted at three locations in NWFP; one at the main truck stand on the outskirts of Peshawar city, second around the location of goods transport companies in Jehangera (35 km. from Peshawar) and third at a roadside cafe where drivers frequently stopped near the Khairabad (Attock) bridge 70 km. from Peshawar. The Khairabad bridge marks the provincial boundary of NWFP with Punjab. The total distance thus covered on different days was around 100 km. from Peshawar to Khairabad bridge. In all twenty[1] truck drivers who used charas were interviewed in NWFP. The only criteria for selecting these respondents was that they admittedly used charas. Additionally, five truck drivers who were non Pathans were interviewed at the main truck stand (Ganjmandi) in Rawalpindi. All the interviews and some of the conversations were recorded on cassettes with the consent of the respondents.

1.3.4 Data Analysis

All the recorded interviews and conversations were transcribed. The data from the interviews was fed on a database, and reports generated. The data was also cross tabulated for a number of variables, e.g., current age, age at first use of drug, reported period of drug use, etc. For the final report, along with percentages, information gathered during focus groups and observations has been included in the relevant sections.

1.4. Difficulties Encountered

The field work did not prove to be easy (as is always the case). There were a number of difficulties encountered. Firstly we chose, inadvertently, June the hottest part and days of the year for the field work. The temperature ran from 40 - 47°C (104 - 116°F) during those days. Secondly, a major shortcoming for the principle investigators was that they did not speak Pushto (one slightly understood the local language). Although this was overcome by the interventions of the outreach workers, during our conversations when the participants in a group switched to Pushto to talk among themselves. Thirdly, at Peshawar, and Jehangera some people spread the rumor that we

[1] Out of approximately 50 truck drivers, 20 volunteered to be interviewed. Also, we did not manage to interview on all the seven days of the field work.

were from the Police or the Intelligence and after conducting the interviews we will have the driving licenses of the respondents canceled. It was a hard time allaying the fears of those present. However, those who were interviewed and found "there was nothing to it" also helped in persuading other truckers to consent to the interviews. Lastly, we had initially planned to travel with the truck drivers on certain routes. We were unable to do this since we were advised not to due to security reasons.

1.5. Format Of The Report

The report is divided into two parts, the first part deals with the background information, while the second part presents the findings of the study with regard to charas use among truck drivers in Pakistan.

The first part is divided into three sections. The first section provides the background information on charas use in Pakistan and NWFP. The second section gives an introduction of the North West Frontier Province, while the third section provides the background information on the truckers. The description in the third section is based on the information gathered as well as observations of the team during the study.

The second part is divided into five sections. The first and the second sections present respectively the summary of major findings and conclusions of the study. The third section gives the demographic profile and other background information concerning the respondents. The fourth and the fifth sections present the history and patterns of drug use among the respondents. The final section looks at the accidents history and activities of the respondents while off duty.

1.6. Acknowledgments

We need to thank,

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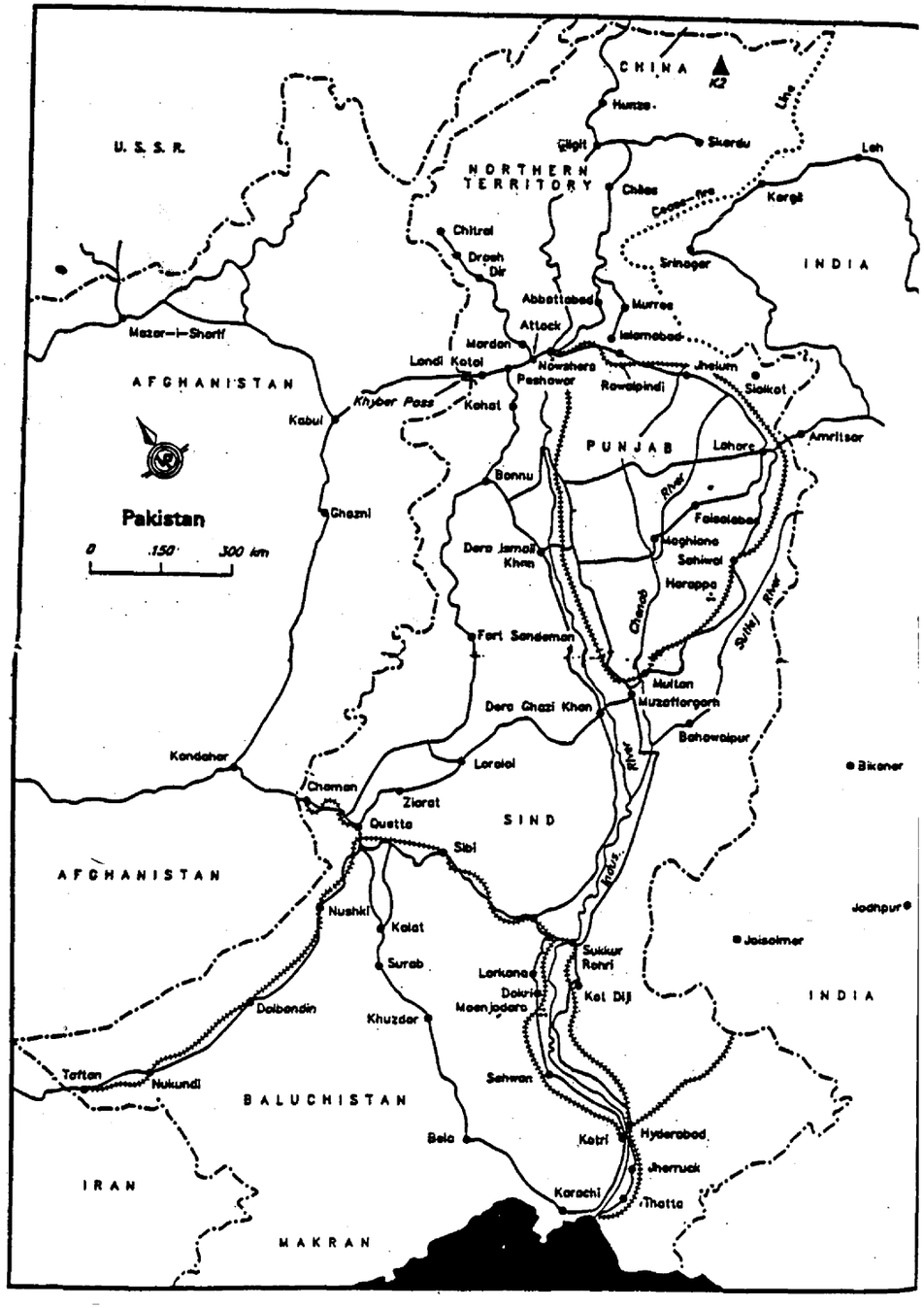
- Mr. Nicholas Kozel, Division of Epidemiology and Prevention Research, National Institute on Drug Abuse, Dr. Alfred Pach, Medical Anthropologist, Department of Family and Preventive Medicine, Emory University School of Medicine, and Dr. Michael Agar of T. Head and company, Inc., for their encouragement and support of this study
- Special thanks to Dr. Alfred Pach, for providing the background information and guidelines for designing the questionnaire and analysis of data
- Ms. Daphne Boone of T. Head and company, Inc., for her administrative support
- The Community Epidemiology Work Group for the support to conduct this study
- Mr. Tahir Khan, who volunteered to accompany us during the field work, whose contacts with the managers and owners, and efforts in persuading the truck drivers for the interviews proved to be invaluable
- All the managers of the Goods Transport Companies in Peshawar, and Rawalpindi, as well as the owners of the petrol pump at Jehangera and the "driver hotel" near Khairabad for their hospitality and allowing us to use their premises
- And lastly, all the truck drivers who taking time out of their work volunteered to be interviewed



2. CHARAS USE IN PAKISTAN

2.1. Country Wide Prevalence

Charas[1] a traditional drug of abuse in Pakistan, is estimated to be the second most popular drug and used by 29.5% or 888,666 chronic abusers in the country[2]. However, there is anecdotal information that charas use (occasional, recreational and regular use) is far more wide spread in the country than it is generally perceived or reported and far exceeds heroin use. Also, as compared to heroin, generally charas used is not perceived as harmful.

The use of charas is found to be common among the young abusers. Of all the charas abusers, 46.8% started charas smoking between the age of 15 - 20 years and another 24.4% started using charas within the age of 21 - 25 years. Of all the charas users in Pakistan, 85.4% were living with their families and only 5.1% had no regular place to live. Charas use was found to be more prevalent among literate(65.8%). Among the literate, charas use in the urban areas of the country was reported to be highest (15%) among those with 9 - 10 years of schooling, while 13% had 11 - 12 years of schooling, and 12.6% middle school. Among rural literate who were using charas, a greater proportion (10.5%) of respondents had only primary level of education. Charas use was most common (29.2%) among skilled workers followed by unskilled workers (21.5%), sales persons (15.3%) and students (11.7%). Also, it was observed that higher percentage of charas users (69%) had received informal training. Charas in general was introduced by friends in the majority of the cases. While 22.3% used charas at home, 15.4% at a friend's house and 29% used at a park or field.

2.2. Prevalence Of Charas Use In NWFP

Charas use is most widespread in the North West Frontier Province (NWFP) with the highest percentage of charas users (33.2%) in the country. Also, in NWFP, the prevalence of charas use as compared to other drugs is also higher (42.6%) as against 29.5% in the country. Punjab has the second highest percentage of charas users (31.2%), but in relation to other drug use it is 24.2% as opposed to 42.6% in NWFP.

The highest prevalence of charas smoking is in the tribal areas and the urban centers of the province. For example, the highest percentage of charas smokers was found to be in Mardan[3] (26.5%), followed by Bannu (16.3%) and Peshawar (15.3%). Haripur, Kohat, and Dera Ismail Khan each had 11.2%. Similarly, in relation to other drug use, Mardan had the highest prevalence (74.3%) of charas, while Bannu had 69.6%, Kohat

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1 Dried sticky resin of female Cannabis plant
2 National Survey on Drug Abuse in Pakistan 1993. The subsequent figures are also cited from the same source
3 Cumulative of urban and rural areas for all the places, NSDA 1993

47.7%, and Peshawar 25.9%[1]. The table below compares the prevalence of charas and heroin among the drug using population in selected areas of NWFP.

	Peshawar		Mardan		Bannu		Kohat	
Drug (%)	Charas 25.9	Heroin 41.4	Charas 74.3	Heroin 5.7	Charas 69.6	Heroin 13	Charas 47.8	Heroin 13

In NWFP the *hujra* or the male clubhouse is often a center for charas smoking. Charas use is restricted to men (keeping in mind that a fifteen year old boy might well be considered an adult in this setting) and is used very regularly among them[2]. According to one source[3], "to a large extent, charas use has social approval, and one can find charas smoking in most social gatherings of all classes, and probably its use is as common as alcohol use in some cultures".

2.3. Cannabis Preparations

Cannabis grows wildly in the northern parts of the country, but the wild growth is primarily of the male plant with low THC (Tetrahydrocannabinol) content. There are two traditional preparations of cannabis in Pakistan.

Charas is the brownish black, dried sticky resin of primarily the female cannabis plant. There are two areas famous for cannabis cultivation in NWFP. One is the Chitral valley and the other is Kurram Agency. Charas is prepared by pounding the cut plant on a *charpoy*[4], the parts thus sifted are heated and rubbed to make the sticky substance. This is called *garda*[5] - the top quality charas, is available in limited quantities in the producing areas and used by elite or *special people*. While the rest of the plant is further pounded and ground, and with the process of heating and rubbing, slabs of sticks of charas are prepared. Generally, charas from the Kurram Agency is preferred over the one from Chitral. A single stick or bar of charas, smaller than the index finger, weighing approximately 10 gm., is sold for approximately Rs. 20 (50 cents) in NWFP. Depending upon the frequency and quantity of use, on the average this amount is sufficient for 10 cigarettes[6]. Charas is primarily smoked mixed with the tobacco in a cigarette. Other methods of charas smoking are with *chilum* - a smoking pipe, where charas is placed over the burning coals and smoked, and *cheeta* a method similar to chasing the dragon, where a piece of charas is heated from below and the fumes inhaled with a straw.

1 National Survey on Drug Abuse, 1993
2 Resource and Reference Manual for the Prevention Resource Consultant Network, Drug Abuse Prevention Resource Center
3 Anonymity maintained
4 A light string bed made of hemp rope, with a wooden frame
5 Literally mean dust
6 Information gathered through interviews with various "charas experts" in the NWFP, anonymity maintained

Bhang - a drink also known as *Sardai* or *Thandai*[1] is primarily prepared from the male plant, is more common in Punjab, Sind, and southern parts the NWFP. The cannabis leaves, along with milk, *khaskhash* (opium seeds), almonds, etc., are ground laboriously with a pestle (having bells on it) in a mortar, and a greenish liquid is prepared. For each time of use, fresh bhang is prepared and a lot of ritual and ceremony is attached with its preparation.

It is interesting to note that the two traditional preparations of the cannabis plant charas and bhang - are used in different weathers, and have different effects on the users. Charas is preferably used in the winters and in cooler times in the evening, since it is considered to be "hot" and one feels very thirsty after its use in summers. *Bhang*, is used primarily in the summers in the afternoons and is considered to be a *coolant*. Bhang is generally considered as an intoxicant while charas is perceived to have different effects depending upon the mood, and expectations of the user (it relaxes or makes the user alert).

3. THE NORTH WEST FRONTIER PROVINCE

The North West Frontier Province (NWFP), smallest of the four provinces of Pakistan, has a total area of 101,741 sq. km. (12.7% of the total area of the country), including the Federally Administered Tribal Areas (FATA). In terms of population the NWFP ranks third in the country. According to the 1981 Census, the population of NWFP was 11,061,328, while that of FATA was 2,198,547[2]. Currently, the population is estimated to be around 17 million (out of a total of 131 million in the country) in the province, additionally there are about 926,161 registered Afghan refugees in the province[3]. The presence of these refugees for over a decade and a half has had its impact on the social, economic and political scenario of the province. Around 80% of the population in NWFP is rural, while 52% of the population is estimated to be male. The reported literacy rate in NWFP is 16.7%, whereas female literacy is estimated to be 6.5%[4]. The major occupational groups in the province are Agriculture 49%, Service 13%, Manufacturing 11.6%, Trade 12.5%, Construction 7%, and Transport and Communication 5%[5]. A considerable number of Pathans work in the Gulf States as construction workers. Also, in all the major urban centers of the country night watchmen, guards, and to an extent, transport and construction workers are reportedly Pathans.

Although the province is small, it has the most variegated topography, climate, history, social and political set up in Pakistan.

1 Literally meaning a coolant
2 Economic Survey 1995 - 96, Government of Pakistan
3 Source State and Frontier Regions Division as reported in Economic Survey 1995 - 96
4 10 years and above 1981 census, as reported in the Economic Survey 1995 - 96, GOP
5 % distribution of employed persons of 10 years and above by major industry division, 1992 - 93 as given in the Economic Survey 1995 - 96, GOP

In the south, at the border with the Balochistan province the land is flat and barren with oases where villages and towns have sprung up. The Indus river forms the natural boundary with the Punjab province to the east, while to the west the mountains form the border with Afghanistan. Beyond the lush valley of Peshawar and the Kabul river the mountainous forest belt rises from 1,000 to over 4,000 meters, to where snow capped mountains and deep valley are dissected by cascading streams. In the North the province is linked with China.

The name North West Frontier Province was given by the British to this region when a separate Pathan territory was created in 1909. This region has been the center of early civilizations such as the Grave Culture of Dir and Swat. Conquered by Cyrus it became a satrapy of Darius in the 6th century BC and later a part of the Hellenic Empire of Alexander in the 4th century BC. The Mauryan and Kushan empires also rose in this region giving impetus to the development of the Buddisht Gandhara culture. These civilizations were swept away by successive waves of barbarian invasions, the Bactrian-Greeks, the Scythians, Parthians, the Sassanians, the Hephtalites and the Tartar Mongol hordes. This land has seen the passage of some of the most famous conquerors in history - Alexander, Genghis Khan, and Tamerlane. However, the British Raj reportedly brought some stability to the region. The authority of the various empires and governments which claimed to rule this Frontier really only extended to control over the plains and one or two of the passages through the mountains. All those who made an attempt to bring the hill tribes under domination as subjects failed, and the tribal forms of society has persisted.

Presently, the NWFP is administratively divided into the following three distinct types of areas,

(a) Federally Administered Tribal Areas (FATA) - are situated east of the Durand line which marks the international border with Afghanistan, and have a total area of 27,220 sq. km. These areas are governed by local customs through the council of tribal chiefs and elders (*jirga*). Most of the laws of the Government of Pakistan do not apply here. The Governor of the province administers the area on behalf of the Federal Government through Political Agents. There are seven agencies comprising of the tribal areas. These are, Bajaur, Mohmand Khyber, Orakzai, Kurram, North and South Waziristan. Additionally there are 4 smaller pockets of tribal areas namely the tribal area Peshawar, Kohat, Bannu and Dera Ismail Khan. The tribal areas are represented through the Maliks (chiefs) in the legislative assemblies, but voting is not on the basis of adult franchise in these areas.

(b) Provincially Administered Tribal Areas (PATA) - these consist of the former princely states of Dir, Swat, etc. which were merged into Pakistan in 1960. Hence they are also called the merged areas. The laws of the Government of Pakistan are being gradually extended to these areas. It is a sort of halfway house between the tribal areas and the settled areas. These comprise of the entire Malakand Division and portion of Kohistan District of Hazara Division.

(c) Settled Areas - here the laws of the Government of Pakistan are fully operative and the Government policies are carried out through an administrative set up as elsewhere in the country. These comprise of the Hazara, Peshawar, Mardan, Kohat and Dera Ismail Khan Divisions.

NWFP has had the distinction of being a major opium growing area (current estimates of opium production are less than 40 tons for 1995), but is still the center for drug production and trafficking. Tobacco is another major cash crop of the province with major cigarette manufacturing units of the country located in the Mardan district. The other seasonal crops of the province are sugarcane, wheat potatoes, vegetables, and except for tropical fruits, almost all kinds of fruit. The Swat valley in the North is rich in emeralds and marble which is supplied all over the country.

Darra Adam Khel (commonly know as Darra) in the south west is the arms capital of the province. The local craftsmen have been manufacturing guns or making perfect replicas of foreign firearms and supplying the warring tribes for over a century.

Here in the market place one can see and purchase guns and weapons (mortars, hand grenades, rocket launchers, etc.) of all types both locally manufactured and imported (smuggled). Also, all kinds of contraband items, as well as drugs (in kilos) can be bought here.

The *Barra*, or *Karkhano Bazar*, 7 km., from the west of Peshawar is considered to be the shoppers' paradise. Here every conceivable electronic gadget, and other smuggled consumer goods can be found and purchased at considerably cheaper prices than other markets in Peshawar or elsewhere in the country.

Sir Olaf Caroe[1] in his famous book *The Pathans*, describes the territory and the people in following words.

> "There is a strange fascination in living among the Pathans. Many attempts have been made to catch and convey that feeling, but the spell is elusive. One secret of the hold of the North West Frontier is to be sought in the tremendous scenic canvas against which the Pathan plays out his life, a canvas brought into vivid relief by sharp, cruel changes of climate. Sometimes the assault on the spirit is that of stark ugliness and discomfort - appalling heat, a dust storm across the Peshawar plain, the eroded foot hills of Khyber or Wazirstan; more often it is an impression of beauty indescribable in its clarity and contrast with the barren emptiness that went before. The weft and warp of this tapestry is woven into the souls and bodies of the men who move before it. Much is harsh, but all is drawn in strong tones that catch the breath, and at times bring tears, almost of pain[2]".

1 Sir Olaf Coroe was the British Governor of NWFP during the last two years before independence in 1947
2 The Pathans, Olaf Caroe, p. xiii, Macmillan & Co. Ltd. 1965

"But the land was made for the men in it, not men for the land. For the stranger who had eyes to see and ears to hear, always as he drove through the Margalla pass just north of Rawalpindi and went on to cross the great bridge at Attock, there was a lifting of the heart and a knowledge that, however hard the task and beset with danger, here was a people who looked him in the face and made him feel he had come home[1]".

The persistence of the Pathan tribal tradition, embedded in the *Pukhtunwali*[2], has produced a society at all levels, starting from the nomad and herdsmen, to the modern lawyer, engineer, doctor, administrator and politician. The rigid law of hospitality, the protection given to the refugee, the jealousy of female honor, the warlike spirit and insufferance of control, the pride of race, the jealousy of national honor and personal dignity, the spirit that loves to domineer, the reckless daring, loyalty to a chief they trust, the love of sport and readiness to take offense and quarrel are some of the characters and customs ascribed to this tribal society. The society in its outlook is puritanical, and most are devout followers of Islam. Ironically most would not consider charas use, or cultivation of opium and cannabis as un-Islamic, despite very clear Islamic injunctions prohibiting the use, cultivation, and trade of mind altering substances. There is complete segregation of sexes in the Pathans culture. Women are rarely seen in the rural areas, and even in the urban centers when they are in public places are clad in a *chaddor*[3] or a *burqa*[4] . Generally, men would spend time outside the house in *hujras*[5] or in male company, and the women would remain within the *zenana*[6], and there would be little interaction between the two except probably at night.

The Pathans, depending on the tribe are of varying complexions and features. Many are of the Turkish racial stock of Iran. Some are fair skinned, blue eyed, light brown hair, and sharp features, and if they were to be clad in trousers and shirt maybe mistaken for a westerner. Others many be light or dark skinned as in other parts of the country. A tribal Pathan clad in his loose *shalwar kameez*, and *turban* or cap may rarely be seen without his gun (in recent times it has been a Klashnikov). Similarly, those who do not brandish their arms may be carrying one on their person. Most Pathans at least own some kind of weapon, and for some it is a passion to own as many different kinds of guns, pistols, etc. as they can.

4. TRUCKERS AND THE TRUCKS

There are an estimated 110,660 trucks on road[7] in Pakistan. The trucks are estimated to transport 60%[8] of the freight in the country. The importance of trucks in transportation of goods is more in those areas of the country which are not linked with the railways.

1 Ibid
2 The Pathan Code of Ethics and Law
3 A long piece of cloth wrapped around the body to leave only the face or the eyes exposed
4 A long enveloping outer garment which covers the body from head to toe
5 A outer room or a community gathering place for men
6 Women quarters
7 Source - National Transport Research Center, as reported in the Economic Survey 1995 - 96
8 Ibid

4.1. Goods Forwarding Agencies

Generally the goods to be transported are handled by the "Goods Transport Companies" or the "Goods Forwarding Agencies", as they are commonly named. These have offices and branches at the truck stands in different cities. The *Agencies* receive the goods from the owner (an individual or a company) and arrange for its transportation through the trucks available with them. Some agencies specialize in handling a specific kind or cargo, while the others may handle general cargo.

4.2. Goods Hauled

Trucks haul all kinds of goods that have to be transported from place A to B., depending on what is available at the goods transport company. Generally the goods hauled include household goods (of people shifting or transferred from one city to another), wholesale goods (daily use and consumer goods), construction material (wood, marble, cement, steel, brick, crush[1], etc.), cotton, scrap, tobacco, fruit, vegetables, cattle, cars etc. The trucks are also allegedly used for transportation of smuggled goods, drugs, arms, or other contrabands from the tribal areas to other parts in the country.

4.3. Routes

The main routes for these trucks is from Karachi to Peshawar (or the other way), as well as destinations in between and beyond, along two major highways. One is the Grand Trunk Road, which passes through Punjab, traveling in a north east direction from Karachi, it turns westward around Lahore. The other is the Indus Highway which by passes Punjab taking a northern direction. The total distance from Karachi to Peshawar is around 1,700 km.

4.4. The Truckers

Ethnically, the majority of long haul truck drivers, reportedly more than 75%, are Pathans. The other main category of truck drivers is from Punjab, and Azad Kashmir. On the local and smaller routes one also finds local drivers. The Pathan drivers claim that only they have the courage and the strength to drive on these long routes and hilly areas, therefore the drivers from the plains do not venture into this territory.

Most of the truck drivers enter the profession as young boys of 12 to 15 years of age as helpers or cleaners with the truck. During the period of apprenticeship the *cleender* (as he is called in their jargon) learns driving, and other tricks of the trade till he is old

1 Crushed or broken stones used in construction

enough to get a driving license or wise enough to handle the truck independently. Depending upon their aptitude for driving, the cleaner becomes a co-driver by the time he is 18 to 20 years old, and in the next couple of years he would become a full driver. Because of the learning relationship between the driver and the cleaner, the driver, especially the senior driver, is sometime referred to as the *Ustad* (the teacher).

The majority of truck drivers do not own the trucks, rather they are employed as drivers by an individual (who may own a number of trucks), or the goods forwarding agency. The individual owner may have his trucks under contract with a forwarding agency, a wholesale depot, a factory or a mill, or he may give the truck to a driver who then pays a fixed amount monthly to the owner, and any amount earned over that goes to the driver. The employed truck drivers get a monthly salary ranging between Rs. 2,000 - 3,000 ($57 - 85), with Rs. 70 - 100 per day paid to them as "on the road expenses". Some drivers are also paid "commission" depending upon the *cargo* they haul. The truck drivers who own the truck earn from Rs. 900 - 1,000 ($25 - 28) per day, again depending on the cargo hauled.

Depending upon the destination, a driver is on the road from a couple of days to a week for a single trip. Seven days is the estimated period for a round trip to Karachi. However, except for a few religious holidays or occasions, they prefer to be on road all the year long. The only period they are off road is the time when they do not have a "booking", which is not very often, or are incapacitated by illness or break down of the truck. At times a driver reaches his destination, off loads, gets another consignment, and be on road again within the time it would take for the consignment to be loaded on the truck.

A single spell of driving for most truckers varies between 8 - 12 hours, again depending upon the route they are traveling, i.e. if they are driving up country on a hilly route a single spell may be for shorter duration. Similarly, on longer routes the trucker would drive for longer hours without break to complete the trip as quickly as possible. Again depending on the individual's preference, he may stop from 30 minutes to a couple of hours after a single spell of driving.

The preferred time of driving for the majority of the truckers is either night time or evening. The reasons for this preference is cooler weather (less heat), less traffic and hassle of the police on the highway.

The police and some other law enforcing agencies have their check posts at places on highways depending upon the routes and areas. The police check the papers (i.e. driving license, ownership papers of the truck, passage receipt of the cargo, etc.) and the goods they are carrying. The police are reportedly more active in checking the trucks during day time. Also, the truck drivers alledge that the police stop and detain them unnecessarily.

Most of the drivers travel with a dim red light inside their cab at night time. This light, according to the truck drivers, is used to dim the effects of oncoming vehicles' beam, to see inside the cab, check the gauges on the front panel, and generally to enjoy the effects of a dim red environment inside the cab.

On some routes (especially in Punjab), at night times, girls (commercial sex workers) accompanied by some person stand on the road side with a torch, and signal the approaching trucks. The driver, if he is in the mood, may *pick the girl* and later drop her at the next stop on the way. However, it is stated that these days it is not safe to pick girls from the road sides since there have been instances where the "girl" was accompanied by *docoits*[1] and the truck had been looted.

Generally, 2 - 3 persons accompany the truck driver on his journey. These include an assistant or co-driver, the cleaner or helper and sometimes the owner of the goods or his representative. The co-driver changes shifts with the driver depending upon a single spell of driving each driver is accustomed to, or when the other is tired out. On local routes or short hauls the assistant driver does not travel with the truck.

The cleaner, in essence, is the *aide de camp* (ADC) of the driver, and has multiple roles before, during and after the journey. Before the journey begins, he checks the engine (POL), tire pressures, brakes, etc. and that the truck is adequately equipped with what ever may be needed during the journey. He also ensures that the goods have been properly loaded on the truck and fastened with ropes or covered with tarpaulin.

On the road, the "cleender" may fill the cigarette with charas for the driver, pay toll or other taxes that have to be paid at various places during the journey, routinely deals with the police during normal checks (the driver will only get down to talk with the police if some serious issues comes up).

At the road side stops, while the driver is resting, the cleaner will again check the engine, clean the wind shield and check if the goods are fastened. During night time driving, the cleaner makes sure that the *Ustad* does not fall asleep, and on longer routes will wake the other driver at 3 o'clock in the morning to replace the driver who had been driving from the night before.

At the end of the journey, the *Ustad* hands over the truck to the cleaner and/or the co driver, who then have the goods off loaded, take the truck for service, oil change, or other repair or maintenance work. Later, the truck is parked at a safe place at the *adda*[2] if they are staying for the night. The cleaner would sleep inside the truck for safekeeping. Alternately, the cleaner will get the number (turn) for their trucks' next loading and destination.

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1 Armed robbers
2 the truck stand

4.5. The Trucks

A truck is the prized possession of its owner and decorated with care and devotion. Since the chassis is bought from the factory, the owner or the driver has the body made to his own liking and preferences. Bedford trucks have been the favorite, while Japanese models are also seen on the road.

The front (overhead the cab) is embossed with tin work with elaborate designs, some may have inlaid work in bright colors with a golden background. Some may even have a wall clock inserted there (probably for the oncoming vehicles to see the time!). The side doors, another piece of craftsmanship, are made of wood and hand carved. The sides may have the name of the company, different patterns and the routes the truck travels, all done in bright colors. The boards to close the back of the truck are done like murals and may have the picture of the driver's hero, leader, a scenic view, of favorite film actress in lascivious poses, along with favorite verses. At the sides, the wheel hub and the back there are flashers or reflectors to add color to the body and for the truck to be seen from a distance at night time. There are numerous side view mirrors, to suit the view of the driver. Also, on the sides, or on the side mirrors, one finds black ribbons or rags tied. These ribbons are meant to ward off the *envious looks* of others as well as protection from *mishaps* on the journey.

On entering, the cab gives a crampy feeling especially on the drivers side, since the steering wheel it jutted on the seat (this is to ensure that the driver sits tight and not stretch or relax while driving). The inside has a number of lights and ornations. There is one single long seat in the cab which is hard (despite the foam) and unless not used to, one can not sit for long on this seat. A cassette player is as essential a part of the truck as its engine, and the drivers depending on their choice and mood play their favorite songs at a considerably high volume. One also finds chains dangling at the front and the back of the truck, these are to add music and sound when the truck is in motion. Heavily loaded with the maximum weight a truck can carry, these trucks travel at a speed between 20 - 40 km. an hour. The average life of a truck's engine is said to be of 2 years after which it is overhauled.

4.6. Road Side Cafes

The road side cafes which are commonly termed as "driver hotels" have a central role in the truck drivers' life on the road. These cafes serve as the break points to rest during the haul, socially interact with other drivers, exchange information of mutual interest or current situations.

These cafes are almost non descript kind of single storeyed constructions. Instead of chairs, one finds large sized *charpoys* to sit or lie down, with table in front of each.

In the summers, these may be placed under a shade or a *veranda*[1], but for the evenings the tablet and *charpoys* are laid out in the open. Many of these cafes are also owned or run by Pathans.

The *driver hotels* cater for most of the truckers' need including meals, tea and cold drinks or even charas. Some may even provide the services of commercial sex workers (mostly male and usually boys) according to the individual's needs and preferences. To facilitate any mechanical work or check up of the truck during the stop, most of the cafes tend to be next to petrol pumps, and in the vicinity of motor mechanics or repair shops along the highway.

The food served at these cafes is very tasty if one has the taste for spicy and greasy food, and very strong tea[2]. A special version of the tea served at these cafes is called *Dood Patti*[3], which is tea brewed in milk instead of water. Also, fried *dal*[4] at these hotels is very popular, and other drivers or passengers also stop at these cafes for the tea and *dal*. However, stewed meat (mutton or beef) or minced meat is favored by most truck drivers. Depending upon the individual driver's preference, he may stop from 30 minutes to two hours at the cafe.

5. SUMMARY OF MAJOR FINDINGS

The total number of respondents interviewed who used charas was 20. All were males and belonged to NWFP. The age group varied from 21 - 55 years, 55% were between the ages of 21 - 35 years. 50% of the respondents had no education, while 30% had 1 - 5 years of schooling. 90% of the respondents were married, 50% lived with their wives and children, and 35% within extended families.

30% of the respondents had been driving trucks for the last 6 - 10 years, while a similar percentage had been driving for 26 - 30 years. 70% of the respondents drove on long hauls, while the rest drove on both long and local routes. 55% drove primarily from Peshawar to Karachi. 80% said that they hauled all kinds of goods.

The majority (55%) would be on road for a period of 7 days for a single haul. A single spell of driving for 45% was between 11 - 15 hours and 4 - 10 hours for another 45% of the respondents. 45% said that they stopped for one hour, and 40% for 2 hours after a single driving spell. For 85% of the respondents, the preferred time of driving was either night time or evening. Less traffic and hassle on the road or highway was the reason for 75%, while 60% added that there was less hassle of police during night time.

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1 A portico or external gallery, usually roofed
2 Also called Karak Chai
3 Dood is milk, and patti is tea
4 Pulses

80% of the respondents were employed as drivers by the Goods Transport Companies or the owner of the truck. Their monthly salary ranged between Rs. 2,000 - 3,000 ($57 - 85) with Rs. 70 - 100 per day paid as on the road expenses.

Generally 2 - 3 persons accompanied the driver on his journey. These included an assistant driver, a cleaner or helper, and at times the owner of the goods they were carrying.

65% of the respondents had taken *naswar*, while 25% had smoked a cigarette as their first drug. For the majority (60%) the age of first drug use was between 12 - 15 years, and 9 - 11 years for another 25%. The next drug used by 90% of the respondents was charas. 55% had started charas use between 9 - 15 years, while the rest 45% between 16 - 25 years of age. 85% were first introduced to the drug by a friend. Pleasure and fun in the company of friends was the reason for starting charas use for most. 35% had started 2 - 4 cigarettes of charas, while 30% smoked occasionally or once in a while in the beginning. The majority said that charas use was common among their friends.

All the respondents were currently daily users of charas, and had been smoking on all days in the previous 30 days. 35% had been smoking charas on a daily basis for the last 10 years, while another 35% had been smoking for the last 20 - 21 years. 50% used between 3 - 5 times, while 40% smoked charas between 6 - 10 times in a day. All smoked charas mixing it with the tobacco in a cigarette.

In the previous 30 days the majority (85%) had smoked charas while driving, as well as on road side cafes. Additionally, 50% had also smoked at home and 30% at the truck stand. 95% had also smoked with their friends in the last 30 days. Additionally 50% had also smoked with co-workers and 40% alone during this period.

75% said that they smoked charas when they felt sleepy, tired or needed to relax. Additionally 75% said that they also smoked when in the company of friends. 75% responded that they always smoked charas while driving. Responding to other drug use, 60% said that they also used naswar, while 25% said that they also smoked cigarettes.

The reason for current charas use for the majority (60%) was to relax, remain alert or concentrate on work, while 40% said "we are used to it". Similarly, for the majority (50%) the reason for smoking charas while driving was to remain awake, alert, relax, or concentrate on driving and another 40% smoked since they were "used to it".

All the respondents said that charas smoking made their driving easy as according to the majority it helped them to remain awake, alert and concentrate on driving.

Responding to the question on who smokes charas, 55% said the young truck drivers smoke charas, while the rest said that drivers of all ages smoke it. 95% of the

respondents said that 50 - 75% of the truck drivers smoke charas - 50% said that *most* truck drivers and 45% said *many* truck drivers smoke charas.

45% of the respondents have had a serious accident while driving. Of these, 77% had one, while the rest had 2 serious accidents in the period they were driving trucks. 33% of these said that the accident occurred when they had smoked charas.

While off duty in their own city, town or village, 85% said that they would go home and spend time with their family, or wife and children. Additionally 40% said that they would also spend this free time with their friends.

After off loading at another place the respondents said that their preference would be to look for or get the next consignment. Failing this, they would stay at the truck stand. 60% said that they would rest and try to catch up on their sleep, 25% said that they would chat with other drivers, and 15% said that depending upon the time and the place they were at, they would go out for sight seeing, watch a movie or visit the red light area.

Responding to the question on their preferences for a place to stop at the roadside, all said that they had their fixed places to stop. 70% said that they preferred a place where the food and service was good, while 30% said that they stopped at places run by their own clansmen.

6. THE RESPONDENTS

The total number of respondents interviewed who were users of charas was 20. All of these respondents were male[1] and belonged to NWFP. Most of the respondents belonged to the rural areas and the lower socio economic group. The tribe wise distribution of the respondents is given in the table.

#	Tribe	%
1.	**Baloch**	5
2.	**Bangash**	20
3.	**Tajik**	5
4.	**Syed**	5
5.	**Khattak**	20
6.	**Mian**	20
7.	**Shinwari**	5
8.	**Afghan**	5
9.	**Yousafzai**	10
10.	**Karegar**	5
11.	**Awan**	5
12.	**Mughal**	20

[1] There are no female truck drivers in Pakistan

6.1. Age

The age group of the respondents varied from 21 to 55 years. 55% were 21 - 35 years of age, while the rest were between 36 and 55 years. The mean age comes to 36.75 years. The age wise breakdown of the respondents is given in the table below.

#	Tribe	%
1.	21 - 25	10
2.	26 - 30	20
3.	31 - 35	25
4.	36 - 40	10
5.	41 - 45	10
6.	46 - 50	15
7.	51 - 55	10

6.2. Education

50% of the respondents had no education at all, while 30% had 1 - 5 years of schooling[1]. The educational level breakdown is given in the table below:

#	Years of Education	%
1.	Zero	50
2.	1 - 5	30
3.	6 - 8	15
4.	9 - 10	0
5.	Upto 12 years	5

6.3. Marital & Living Status

90% of the respondents were married, while the rest (10%) were single (never married). 50% of the respondents lived with their wives and children, 15% with their parents, and 35% in extended family, which included grandparents, parents, uncles, brothers and sisters.

[1] In the Pakistani system this is primary education

6.4. Years Driving Truck

30% of the respondents had been driving for the last 6 - 10 years. Similarly, another 30% had been driving trucks for 26 - 30 years. The mean period comes to 16.75 years. The break down of respondents by the number of years driving is given below.

#	Tribe	%
1.	1 - 5	10
2.	6 - 10	30
3.	11 - 15	10
4.	16 - 20	15
5.	26 - 30	30
6.	31 - 35	5

6.5. Driving Routes

70% of the respondents drive on long hauls, while 30% said that they drive on both the local and long routes. 55% of the truck drivers interviewed drive primarily from Peshawar to Karachi (Sind) and back, with an approximate distance of 1,700 km. oneway. While the other routes mentioned were Lahore (Punjab) to Peshawar (450 km.); Tal, Parachinar, Kohat (all in NWFP - approx., 100 km.); Peshawar, Rawalpindi Sargodha (Punjab) approximately 400 km.; Peshawar, Rawalpindi, Lahore, Multan and Hyderabad (Sind), approximately 1,500 km., Peshawar, Multan - approximately 800 km.; Peshawar, Mingora approximately 160 km., partly hilly (NWFP); Peshawar, Quetta (Balochistan), 1,600 km., and Azad Jammu Kashmir, (300 km., with partly hilly areas) etc.

6.6 Kinds Of Goods Hauled

80% of the truck drivers said that they hauled all kinds of goods, it all depended on what was lying at the goods transport company, and therefore they did not have a choice in picking up specific goods. Generally the goods, mentioned by some respondents, included household goods (of people shifting or transferred from one city to another), wholesale goods (daily use and consumer goods), construction materials (wood, marble, cement, steel, brick, crush[1], etc.), cotton, scrap, tobacco, fruit, vegetables, cattle, cars etc. The same was did of other truck drivers, i.e., they hauled all kinds of goods for which they got the "booking".

[1] Crushed or broken stones used in construction

6.7. Period On The Road

The majority (50%) of the respondents would be on road for a period of 7 days for a single haul. This was approximately the time period for a trip to Karachi. As earlier explained this time period is for a single trip, while the truckers like sailors, tend to remain on road for most part of the year. Only one respondent who was the owner of his truck said that he takes two days off in a week to rest at home. The mean period for the respondents to be on road comes to 5.21 days. The time periods for a single trip given by the respondents are given in the table below:

#	Days on the road	%
1.	1	5
2.	2	20
3.	3	10
4.	4	5
5.	7	50
6.	10	5

6.8. Single Spell Of Driving

A single spell of driving for the majority (45%) was between 11 - 15 hours, while 20% drive for 8 - 10 hours. The mean period for single spell comes to 10.60 hours. The driving spells for the respondents is given in the table below:

#	Single spell of driving	%
1.	4 - 6	25
2.	8 - 10	20
3.	11 - 15	45
4.	16 - 18	10

45% of the respondents said that they stopped for one hour, 40% for 2 hours and 15% for 30 minutes after a single driving spell.

6.9. Preferred Time Of Driving

85% of the respondents said that their preferred time of driving was either night time or evening, while 15% said that they preferred early morning (dawn) for driving. The reasons given for the preferred time of driving are listed in the table below. Please note that each respondent gave more than one reason.

#	Reasons for preferred time	%
1.	Less heat, cooler weather	40
2.	Less traffic and hassle on the highway/road	75
3.	Less hassle of police	60

6.10. Worked For Whom?

40% of the respondents worked with "Goods Transport Companies". The other 60% did not work directly with the Goods Transport Companies, rather the owner of the truck had his truck at the GTCs under contract, or hauled goods under contract from a "wholesale depot" a factory or a mill (cement, tobacco, marble, flour, etc.)

80% of the respondents were employed by the Goods Transport Companies or the individual owner of the truck as driver, while the rest were themselves owners of the trucks they were driving. Driving was the main source of income for all the respondents. For those employed as truck drivers their salary ranged between Rs. 2,000 - 3,000 ($57 - 85) per month, with Rs. 70 - 100 per day paid to them as "on the road expenses". Those truck drivers who owned the truck earned from Rs. 900 - 1,000 ($25 - 28) per day depending on the load of the cargo.

7. DRUG USE HISTORY

7.1. First Drug Use

65% of the respondents had started taking *naswar*, 25% smoking cigarettes, and 10% smoking charas as their first drug. The average age of the respondents at the time of first drug use comes to about 13 years. The breakdown of respondents by first drug and age of first drug use is given below:

#	First drug used	%
1.	*Naswar*	65
2.	Cigarette	25
3.	Charas	10

#	Age at first drug use	%
1.	9 - 11	25
2.	12 - 15	60
3.	20	15

It will be interesting to note that the majority (60%) had their first drug use at ages between 12 - 15 which corresponds with the age group the majority had started their apprenticeship as cleaners.

The majority (85%) of respondents did not use any other drug at the time of their first drug use. However, 10% had started smoking cigarettes and 5% had started taking *naswar*.

7.2. First Time Charas Use

The next drug used by the majority (90%) of the respondents was charas, while 5% started using alcohol as their next drug. The first time charas was used by 55% of the respondents was between ages of 9 - 15, while the rest (45%) started using charas between 16 - 25 years. The mean age of the respondents at the time of first charas use is 16.90 years. The age of respondent at their first time charas use are given below:

Age at first charas use	9	12	13	14	15	16	19	20	22	25
%	5	15	5	15	15	10	5	5	5	20

For the majority (85%) of the respondents, charas was first introduced to them by a friend. The setting varied for the respondents, but generally it was a place outside their or the friends' house, near the place of their residence (village, city or town), or at the *adda,* and the drug was used in company of other friends while chatting idly. Pleasure, enjoyment and fun were the main reasons for which the majority accepted the offer of charas. One respondent said that he had cold for some days and his friend asked him to smoke charas as it would cure his cold, so acting on the friends' advice he smoked it. Another respondent said that during a marriage festival he had persistent stomach ache, and his friend offered him charas as it would relieve his ache, so he used it. For the rest 15%, they started charas by filling the cigarette for their *Ustad* during driving, and after lighting the cigarette would take a few puffs and then hand it over to the *Ustad* . 80% of the respondents said that charas use was common among their friends, while 10% said that it was not very common and 10% said that it was not common at all among their friends.

7.3. Frequency Of Charas Use At The Start

40% of the respondent said that they started smoking between 2 - 4 cigarettes of charas in the beginning. The frequency of charas use for the respondents at the time of start is listed below:

How often?	Occasi-onally	Few puffs	Once a week	1 cig/ day	1-2	2	2-3	3	3-4	5	10
%	15	10	5	15	5	5	20	5	10	5	5

90% of the respondents said that they had not used drugs other than charas, while 10% said that they had used alcohol as well.

8. DRUG USE PATTERNS

8.1. Current Charas Use

Currently all the respondents were using charas. It is interesting to note that cigarette smoking was not as common among this group, since only 40% were regular cigarette smokers. 75% were also using *naswar*, while 15% were using all the three substances (i.e. charas, *naswar*, and cigarette).

All the respondents had used charas in the last 30 days. The period for which the respondents were daily using charas is given in the table below:

Period of use	6 - 7 years	10	15	20 - 21	25
%	10	35	15	35	5

35% of the respondents had been daily using charas for the last 10 years. A similar percentage had been daily users for the past 20 - 21 years.

Since all the respondents were daily charas users, instead of counting the number of times they had used in the last 30 days they just stated the number of times they used charas in a single day. 50% used between 3 - 5 times, while 40% smoked charas from 6 - 10 times in a day. 4.25 times is the mean for charas use in a day. The breakdown of respondents by number of times used in a day and the range of periods for which they had been using charas as often is given in the table below.

Times used in a day	1	2	3	4	5	6	7	10
Years using	10	2	6-20	10-20	12-25	10-20	10-20	10
%	5	5	20	15	15	25	10	5
Cumulative %		10		50			40	

Alternately, looking at the years for which respondents had been using charas as often, we find that 35% had been using charas 3 - 7 times daily for the last 20 years, and 30% had been using 1 - 10 times in a day for the last 10 years. Two respondents had decreased their charas use over the previous years because of health reasons. These were young respondents. This breakdown is given in the table below:

Years Using charas	2	6 - 8	10	12 - 15	20	25
Times used/day	2	3	1 - 10	4 - 6	3 - 7	5
%	5	10	30	15	35	5

8.2. Occasions, Places, And People

The places at which the respondents had used charas in the last 30 days included while driving, at road side cafe, home and at *adda*. Except for one respondent who was using charas once a day, all the respondents said that they smoked charas at these places whenever, every day or at all times. The frequency of responses for each place is listed below. Please note that each respondent listed more than one place for charas use.

#	Occasions/place	%
1.	Driving	85
2.	Road side cafe	85
3.	At home	50
4.	Adda	30
5.	Picnic spot[1]	10

[1] These respondents said that whenever they come across a scenic place while driving they would stop there, rest and smoke charas.

The people with whom the respondents had smoked charas in the previous 30 days primarily included friends and co-workers. These are listed in the table below. While responding to the question "how often" with each, except for one, all responded with whenever, every day or at all times.

#	With whom	%
1.	Friends	95
2.	Co workers	50
3.	Alone	40
4.	Depends on where a person is	5

Further, the respondents said that smoking charas was more enjoyable in the company of friends. They also stated that they would not smoke charas with strangers, but later while having discussions within groups, a number of respondents smoked in our presence. An interesting thing that happened during one discussion at the main *adda* in Peshawar was that while we were chatting with the truck drivers a manager whom we had earlier talked to, came to where the group was sitting and distributed pieces of charas he had just received among those present as gifts.

8.3. When Do They Smoke?

Responding to the question as to when they smoked charas, 75% said that they smoked charas while feeling sleepy or tired, to relax or when with friends. 50% said that they smoked charas in the evening[1] or at night. 20% responded that they smoked whenever they felt the need or desire, and 10%[2] said that when the weather was good. These responses are tabulated below.

#	When smoke	%
1.	Sleepy, tired, to relax	75
2.	Friends' company	75
3.	Evening or night	50
4.	Whenever felt the need	20
5.	When weather is good[3]	10

1 The respondents said that if one smoked charas first thing in the morning, he would have the desire and continue smoking for the rest of the day, and would have a bad day.
2 This response was given by the same respondents who earlier stated that they smoke charas at scenic places.
3 In hot weather the user feels parched after smoking charas

8.4. How Often While Driving?

Responding to the question on how often the respondents smoked charas while driving, 75% said that they always smoked, 20% once in a while, and 5% said that they seldom smoked charas while driving. It is interesting to note that those who said that they smoked "once in a while" or "seldom" while driving, further said that they would smoke at the cafe or stop at road side to smoke and then resume driving. The respondents said that in this way they would enjoy more the smoke and later the driving.

#	How often while driving	%
1.	**Always**	75
2.	**Once in a while**	20
3.	**Seldom**	5

8.5. Other Drug Use

As already stated above, 60% of the respondents also used *naswar*, 25% regularly smoked cigarettes, while 15% were regularly using all the three substances (i.e. charas, *naswar*, and cigarette). The respondents said that except for these, currently they did not use any other drugs.

#	Other Drug Use	%
1.	*Naswar*	60
2.	**Cigarette**	25
3.	**Charas**	15

All the respondents smoked (cigarettes) or used *naswar* while driving. On the question of using other drugs with charas, they did not use *naswar* while smoking charas, but would do it later. And concerning cigarettes, charas is smoked by mixing it with the cigarette tobacco.

8.6. Reasons For Charas Use

On the question of why the respondents smoked charas, generally the responses can be categorized into,

#	Why smoke charas	%
1.	**To relax, remain alert, concentrate on work**	60
2.	**Used to it**	40

Additionally the respondent gave other reasons that include,

- "starting using to enjoy, later used to please a boy I was in love with, and finally became a *pucca charsi*[1]"
- to remain calm, and divert attention from worries
- to work when need to work, and sleep when wanting to sleep
- to digest food
- everybody smokes it
- because of friends' company
- charas is made for smoking, so I smoke it
- it is a good medicine (for colds, digestion, etc.)

8.7. Charas Use While Driving

Responding to the question on why they smoke charas while driving, again the responses can be categorized generally into,

#	Why smoke charas while driving	%
1.	**To remain awake, alert, concentrate on driving and relax**	50
2.	**Used to it**	40
3.	**Part of the culture**	5
4.	**Not while actually driving**[2]	5

While responding to the question on whether charas use was a problem or helps with their work, all the respondents said that it was an advantage or helps in driving. 85% stated that charas helped them in remaining awake, alert or concentrate while driving. Additionally 25% said that it relieves tension or relaxes them, while a similar percentage added that it helps in spending time or relive boredom gazing incessantly at the black tarmac ahead. These responses are listed below.

1 A hard core charas user - usually a derogatory term

2 See the explanation under "How often while driving"

#	How charas help while driving	%
1.	**Remain awake, alert, concentrate on driving**	85
2.	**Relieve tension / relax**	25
3.	**Spend time/relieve boredom**	25

When asked if there were times or occasions while driving when the respondents smoked charas, 55% said that there were no specific times or occasions when they smoked charas. 35% said that they smoked when they felt sleepy or tired, 5% stated that they would smoke charas if they had an urge to drive fast. Similarly 5% said that they would smoke once they were within the NWFP territory.

Similarly responding to the occasions when they would not smoke charas while driving, 75% stated that there were no such occasions. Interestingly 20% said that they would not smoke when approaching a police check post (since the police would know from the smell in the truck, and allegedly harass them). 5% said that they would not smoke in Punjab (where it is not customary).

At this stage in individual interviews, as well as later in our group discussions with the respondents and others present we asked them about the perceived effects of charas on the user. Some responses in their words are listed,

- As a medicine it relieves cold (they said it dries up body fluids). This was the reason they smoked less charas in summers especially during day time, and more in the winters. A person would feel parched in summers.

- Is an appetizer, so if you smoke before meals you eat more, and if you smoke after meals it helps in digestion of food. Most respondents said that they preferred to smoke charas after meals

- Helps in reducing fat in the body and maintain body weight. A number of respondents said that if they did not use charas, they would become bulky and fat (and their tummies would be touching the steering wheel of the truck)

- Helps in concentrating on whatever a person is doing. It also makes a person very careful in whatever he is doing, or in the words of some "it makes a person coward". For instance, the respondents said that no truck driver would drive rash or meet an accident if he has smoked charas.

- Relaxes the eyes, if they are strained as well as other body muscles.

- Charas had dual effects. If one wants to remain awake, it helps in remaining awake, and if one wants to sleep it relaxes and helps in sleep.

- Opens up a person, so he can talk freely, and enjoy if he is in company of friends. Also, makes sex more enjoyable.

When asked about the "bad" effects of charas use, most of the respondents agreed that it was not a good thing, but many did not elaborate the "bad effects". Some said that if the user did not eat good food with charas he would become emaciated, "may not be able to go to a woman" (have sex) or do his work. One 70 year old white bearded truck driver with a *tasbbeh*[1], still driving, whom we had not interviewed but was part of the later discussions said that he was smoking charas for the last 50 years. He said that he smoked one cigarette of charas every 80 km. but was a strong as any of the other younger drivers present there. Since this truck driver was a *haji*[2], we asked him what happens if he has smoked charas, and its times to say his prayers. He said, "nothing, I will just perform my ablution and say the prayers", even intoxicated!

8.8. Method Of Charas Use

All respondents said that they smoked charas with the cigarette. Additionally, two respondents said that they also smoked charas on a *chillum*[3] and one on *cheeta*[4]. These respondents preferred smoking charas on *chillum* or *cheeta* since in their view "in this way the fumes are pure, and you don't get cough, as with smoking cigarettes".

8.9 How Charas Is Smoked With A Cigarette

This was demonstrated to us by one of the respondent. First, the tobacco from a cigarettes is emptied. Then a small piece of charas is stuck on one end of a match stick and is heated with another match or a lighter. This is then mixed with the tobacco, and then filled (ensuring that the tobacco is not tightly packed) in the cigaretted. The lower end of the cigarette is twisted around so that the tobacco does not fall out. If charas is being smoked in company, each person takes a few puffs and then passes it to the next, and it goes on.

8.10. Who And How Many Truck Drivers Smoke Charas

Responding to the question, 55% of the respondents said that young truck drivers smoke charas, while the rest said that truck drivers of all ages smoke it. Responding, to how many truck drivers smoke charas, 50% said that *most* truck drivers smoke, 45% said many and 5% said *some* truck drivers smoke charas. In terms of percentages 95%

1 Rosary - string beads
2 One who has performed the Holy pilgrimage to Mecca
3 A tobacco pipe, where charas is placed over the burning coals and smoked
4 A method similar to chasing the dragon. A piece of charas is heated from below, and the fumes sucked with a straw

of the respondents said that 50 - 75% of truck drivers smoke charas. For a consistent reply from the respondents, we had asked them to reply in terms of *paisas* or *annas*[1] in a rupee. The responses were categorized accordingly in the following manner.

#	Category	% smoked	Response (%)
1.	Most	50	75 / 12 annas
2.	Many	45	50 / 8 annas
3.	Some	5	25 / 4 annas
4.	Few	0	Less than 25

8.11 Why Other Truck Drivers Smoke Charas

Responding to this question, 35% said that others smoked for the same reasons as theirs, a similar percentage said "to relax (relieve stress) and remain awake". 15% of the respondents said that others smoke because of the culture, 10% said that since they are used to charas smoking so they smoke, while 5% said that all have their own reasons and choices.

Since all the respondents at this stage were Pathans, we wanted to test the hypothesis "is Charas use as common among other truck drivers" for instance Punjabi truck drivers. We randomly interviewed five truck drivers in Rawalpindi, 3 of who were Punjabis and two belonged to Azad Kashmir, Interestingly, while other patterns of driving, routes, etc., matched, none of them smoked charas. These, other truck drivers, and managers of goods transport companies we talked to in Rawalpindi, said that charas smoking among non-Pathan truck drivers was not as common. They estimated that from 5 - 10% of these truck drivers smoked charas.

9. ACCIDENTS AND OFF DUTY

9.1 Accidents History

This section looks at the history of accidents of the respondents as stated by them during the interviews.

55% of the respondents said that they never had any accident in the years they were driving, while 45% said that they have had a serious accident. Of those who have had an accident, 77% had only one, while the rest (23%) had two serious accidents in the

[1] There are 100 paises in a rupee. Under the old system, which is still familiar to all, there used to be 16 annas in a rupee. A 25 paisa coin was equivalent to 4 annas.

years they were driving trucks. 33% said that the accident occurred when they had smoked charas, while the rest (67%) said that the accident was not due to being under the influence of drug or their negligence.

9.2 Off Duty

This section looks at what the truck drivers do once they are off duty and go home, stop at roadside cafes, or reach another destination.

9.2.1 At Home

85% of the respondents said, that when they return to their home city / town / village and if they do not have any consignment, or are free for the night, they would go home, and spend the free time with their family or wife and children. In this case 70% used the term 'family' which for most included grandparents, parents, brothers, uncles, etc., and the rest specifically mentioned wife and children.

Additionally 40% said that they would spend their free time with their friends, while 10% added that they would sit a the *adda* and chat with other drivers. All said that they would prefer to rest and relax during this free time.

9.2.2 At Another City

Responding to this question, all the respondents said that their preference would be to look for or get the next consignment and begin the return journey. However, in the case they were free all would stay at *adda, dera*[1] or with the truck. 60% said that they would rest and try to catch up on their sleep, 25% said that they would chat with other drivers, and 15% said that depending on the time and the place they were at, they may go out for sight seeing, watch a movie, or visit the red light area.

At this stage we also asked the respondents about their sexual behaviors. It is interesting to note that except for the 15% who said that they may visit the red light area during their stay at other cities, the rest did not openly acknowledge their extra marital sexual activities. They said "others do it", but not them, or they said that everyone at one point in his life does *things* of this sort. However, all the respondents said that girls are easily available to them, even on the roadsides (more so in areas of Punjab).

[1] The sleeping or resting quarters within the *adda*

9.2.3 Road Side Stops And Cafes

Responding to the question about their preferences for a place to stop, all the respondents said that they had their fixed places for stops on each route they traveled. 70% said that they preferred a place where the food and service was good or to their liking. 30% said that they stopped at places which were run by their *own people* (from their clans or tibes). 10% further added that other than the food and service, they stop at the place where they can also get charas or other things (boys or girls) if they need them.

Depending upon the length of the stay or the stop which ranged from 30 minutes to 2 hours, the drivers eat their meals, have tea, rest and chat with other truckers at the road side cafes. Truck drivers coming from different destinations also exchange information on the road side conditions, weather, and the general situation on the route, their destination or back home. During the stop, if the driver felt the need he would also smoke charas here.

10. CONCLUSIONS

- Charas use is apparently more common among Pathan truck drivers, as compared to other drivers. This, as well as its use among other occupational groups, especially those with monotonous and long hours of work, within Pathans and non Pathans, needs to be further investigated.

- Similarly, charas use within the Pathan culture and the culture of other provinces like Punjab (with high prevalence) needs to be further investigated for similarities or differences and to have a better understanding of the extent, nature and pattern of charas use in Pakistan.

- This study did not provide any evidence of the "escalation phenomenon" whereby drug users supposedly move from one drug to the other (higher drug) in the course of their addictions, as believed by some people.

- Since, presumably there are no perceived adverse effects of charas on its users as generally believed - for some even after long term use - from a drug prevention perspective the effects of charas use on the mind and body of the users need to be studied. Similarly these have to be presented to the users in a manner in which they can relate to those effects and not discard as something that "happens to others".

PREVALENCE, USE AND PERCEPTIONS ON GANJA IN SRI LANKA

Sri Lanka Anti Narcotics Association

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1. INTRODUCTION

Cannabis *(Ganja)*

Cannabis (Ganja) the traditional drug of abuse, especially among the rural population of Sri Lanka is derived from the botanical name "Cannabis sativa". Ganja is obtained from the Hemp plant, a weed which grows profusely in a warm, dry climate and the tropical climatic, conditions in Sri Lanka are conducive for the growth of the plant. Cannabis is illegally cultivated primarily in the South-East region of the country. Recent police detections indicate that, cultivation also takes place in the Eastern region.

Vast tracts of jungle are cultivated with Ganja and it is not possible to give the extent nor is it possible to estimate the amount harvested annually.

The Ganja plants is usually harvested twice a year. Part of it is used domestically while the balance is illegally exported in the dry form concealed in legitimate cargo.

Cannabis has been used in Sri Lanka for centuries especially in the use of *Ayurvedic* medicine. However, due to the addictive potential of Cannabis (it is generally considered psychologically addictive), the production, distribution or possession of Cannabis was made illegal, during the last century.

In Sri Lanka for Cannabis users, the most preferred method of "getting high" is by smoking. By this process, within minutes the mind altering canabinoids in Cannabis are transported to the brain and other vital organs of the body and thus the heart, lungs and the reproductive system are affected.

The present law governing the use of Cannabis (Ganja) is the Poisons, Opium and Dangerous Drugs Act No. 13 of 1984.

At present, the penalty imposed for the offense of trafficking, importing or exporting Cannabis (Ganja) is as follows:

Quantity	Penalty
5 kgs and more	A fine not less than Rs. 25,000/- or exceeding Rs. 50,000/- or imprisonment for a period of not less than 2 years and not exceeding 56 years.
Not exceeding 5 kgs	Fine not exceeding Rs. 25,000/- or imprisonment for a period not exceeding 1 year.

The smoking of dried Cannabis flowers is now being resorted to by a certain class of people in Colombo who can afford to pay the high price this product demands. One kg of the dried flower fetches Rs. 10,000/- as compared with Rs. 20,000/- for the normal dried Cannabis leaves (Cannabis).

2. STUDY DESIGN AND METHOD

Though the only drug produced in Sri Lanka is Cannabis, locally names or referred to as Ganja, there seems to be little focus and public interest on its' use. Therefore this paper adopting three sources of information sought to investigate the prevalence, use and perception in relation to Cannabis/Ganja.

Following are the three (3) sources of information utilized for this purpose

1. Information from the Police Narcotics Bureau for the year 1995/1996, on growing areas, seizures and arrests on Cannabis/Ganja.

2. Information on the use of drugs from the drug users seeking referral from SLANA during the period 1 April 1996 - 31 October 1996.

3. Information on social perceptions gathered through a structured questionnaire administered in three (3) areas of Sri Lanka, namely Colombo, Hambantota and Hatton situated in three geographical provinces.

3. GANJA CULTIVATION, SEIZURES AND ARRESTS OF GANJA

Ganja cultivation in Sri Lanka seems to be particularly concentrated in the center of the island, known as Uva province and the border of Eastern province. The high growth areas are Thanamalwila, Udawalawe, Embilipitiya, Suriyawewa and Monaragala (**Figure 1**).

In 1995, 120 hectares (75 acres) were eradicated in the Thanamalwila area. Ganja is cultivated in plots of lands ranging from quarter acre to one acre in extent.

The quality of Ganja seized in 1994 was 51,538.561 kg., whereas the quantity in 1995 shows a slight increase being 59, 448.900 kg.

Quantum of single seizures can very from 10 kgs. to as much as 381 kgs. The number of cases detected in 1994 was 3,008 in 1995 it had increased to 3,910 cases. Arrest figures also indicate an increase from 3,039 persons in 1994 to 3,941 persons in 1995.

The most number of Ganja offenses for 10 kgs. and over have been reported from Embilipitiya, Kegalle, Wallasmulla, Kuttigala, Siyambalanduwa, Thamanwilla, Giraduru Kotte, Vallachchena, Kadugannawa and Batticalo. Of these the highest number of arrest have been in the Embilipitiya, Kuttigala and Vakllachchena areas, where growth of Ganja is significant.

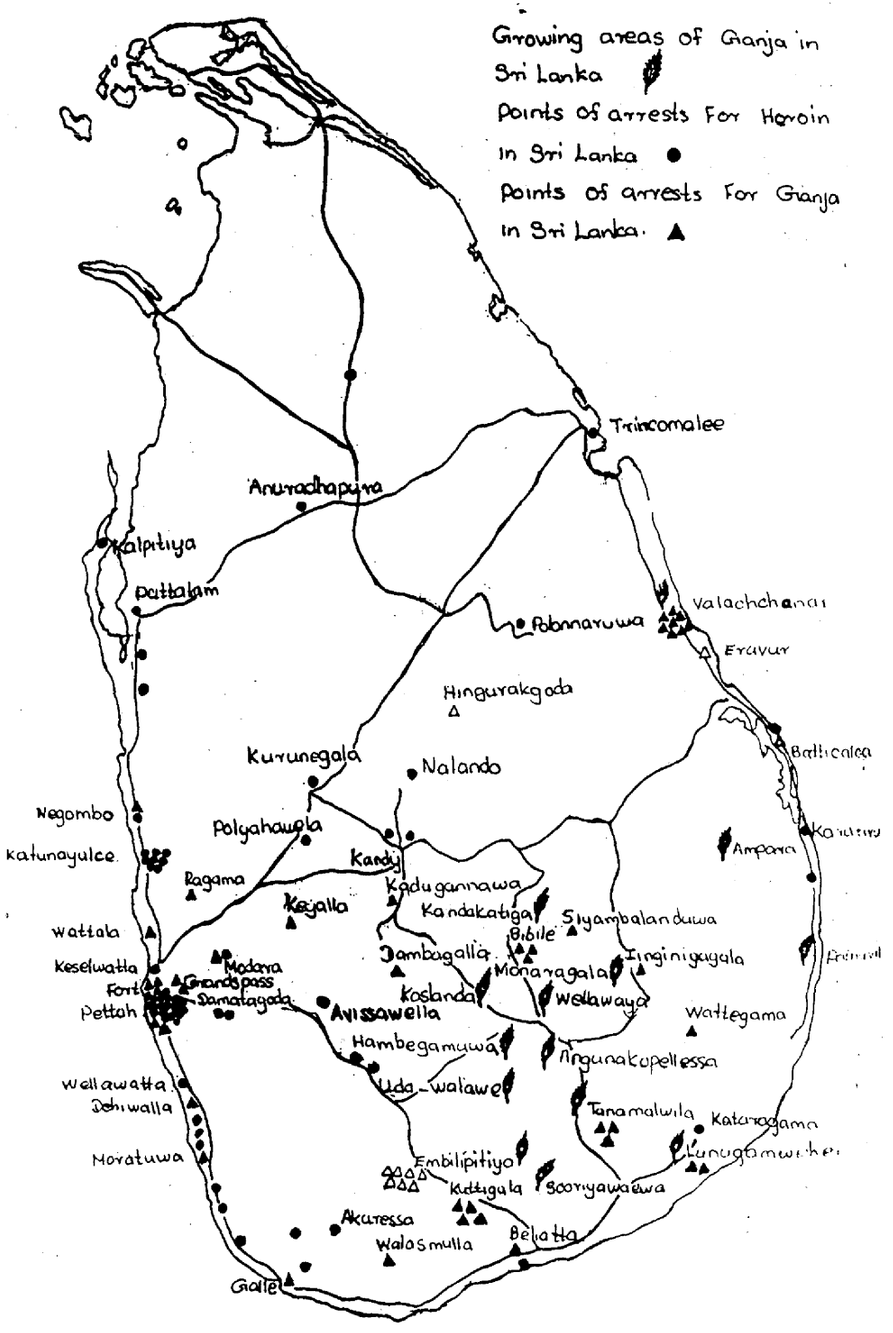
Significantly a high number of arrests seems to have also been made in the Western Province within and close proximity to Colombo the capital city of Sri Lanka. These areas include Wattale, Moratuwa, Dehiwala and Pettah. It is interesting that these areas are situated quite a distance away from the growing areas which is indicative of transportation and trafficking within the island, to places where there is a demand for Ganja.

Majority of those arrested for Ganja belong to the ethnic group of Sinhala followed by Tamil and a few Muslims. The number of Sinhalese are 24, Tamils 7, and 3 Muslims.

Sex-wise, the majority arrested with possession are male, numbering 31 persons, in comparison to 3 females.

Figure 1

Map indicating areas under cultivation of Cannabis and Arrests



3.1 Arrest For Heroin And Ganja In The Colombo District

Table 1: The Raid And Arrests For Drugs According To Police Stations
1 January - 30 June 1996

Police Station	Heroin			Ganja			
Colombo Central	**Number of cases**	**g**	**mg**	**Number of cases**	**kg**	**g**	**mg**
Fort	12	01	855	-	-	-	-
Pettah	213	121	315	13	03	349	-
Maradana	140	101	870	13	-	229	90
Maligawatte	95	06	832	14	-	56	-
Salve Island	185	75	127	-	-	-	-
Keselwatte	146	09	640	29	0	47	300

Police Station	Heroin			Ganja			
Colombo North	**Number of cases**	**g**	**mg**	**Number of cases**	**kg**	**g**	**mg**
Port	-	-	-	-	-	-	-
Beach	31	24	779	03	-	-	-
Mutuwal	159	65	480	19	-	02	600
Kotahena	412	221	665	01	-	01	-
Grand Pass	743	81	980	18	02	471	65
Dematagoda	191	396	765	22	01	165	-

Police Station	Heroin			Ganja			
Colombo South	**Number of cases**	**g**	**mg**	**Number of cases**	**kg**	**g**	**mg**
Colpity	09	-	135	03	-	26	-
Bambalapitiya	-	-	-	01	-	01	-
Wellawatte	88	06	655	06	-	06	80
Borella	310	178	230	09	-	17	25
Cinnamon Gardens	20	0	425	06	-	-	30
Narahenpita	71	12	140	04	-	02	-
Kirulaponna	124	72	63	04	-	21	-

4. HEROIN USERS ASSOCIATION WITH GANJA AS A COMPARISON

To ascertain heroin users association with Ganja, the information gathered during the referrals carried out by SLANA during the period 1 April - 31 October was analyzed for comparison. The reasons for use for the two types of drugs and age of first use was compared (**Table 2**).

4.1 First Time Use

Of the 64 heroin users who sought referral 48 admitted to having used Ganja at some time in their life. All instances of the first time Ganja use has been before 30 years, whereas heroin use for the first time has occurred even at the age of 40 years.

At the lower limit, whereas Ganja has been used for the first time by 2 persons below the age of 10 years, the first time use of heroin has occurred only after 11 years of age according to our referral information.

However, the highest age range for first time use for heroin as well as for Ganja is in the group between 16 - 20 years.

First time use for other age groups show a definite decline for Ganja users, dropping from 30 to 3 responses whereas heroin use continues with a decline till age 40.

Table 2: Use Of Heroin And Ganja Amongst Those Seeking Referral From SLANA
1 April - 31 October 1996

Type of Drug	Heroin		Cannabis	
Age Group	Male	Female	Male	Female
Below 10 years	-	-	02	-
11 - 15 years	05	-	08	-
16 - 20 years	31	-	30	-
21 - 25 years	16	-	05	-
26 - 30 years	07	-	03	-
31 - 35 years	04	-	-	-
36 - 40 years	01	-	-	-
Total	64	-	48	-

4.2 Reasons For First Use

The users of heroin as well as for Ganja indicate that the strongest factor which led to their first time of either or both the drug was due to curiosity, followed by the influence of friends. However, more people seem to use heroin as a means of escapism from problems than Ganja on a response rate of 6 to 3.

This data seems to indicate that Ganja is considered more as a recreational drug often tried through curiosity for experimentation rather than to relieve anxiety or stress.

Discussions with heroin users supports this view as many of them stated that they used Ganja only a few times, a few months, sporadically during a year and that they do not continue with it, especially after they commenced the frequent use of heroin. They seem to develop a distaste for ganja resulting in squeamish feelings when used intermittently with heroin (**Table 3**).

Table 3: Reasons For First Time Use
1 April - 31 October 1996

Reasons	Heroin		Cannabis	
	Male	Female	Male	Female
Curiosity	40	-	32	-
Friends	18	-	12	-
Problems	06	-	03	-
Pleasure	-	-	01	-
Total	64	-	48	-

5. SOCIAL PERCEPTION OF GANJA USERS

To ascertain the social perception of Ganja users, a questionnaire seeking 18 responses, was administered to 46 respondents, in three different locations of Sri Lanka, namely:

- Hambantota, an area situated in close proximity to the growing region, and having a considerable prevalence of heroin and Ganja users.
- Hatton an area situation in the hill section of central Sri Lanka, reported to having a high prevalence of alcohol.
- Colombo the capital of Sri Lanka subjected to many transitions and many social upheavals, experiencing a multifaceted drug use prevalence situation.

5.1 Data Analysis And Interpretation

The responses to the questionnaire was framed in some instances as multiple responses, which do not add up or is more than the number of responses. Also the no response indicators were not taken into account in drawing up the table. The tables therefore do not show the total or percentages, but merely the number who responded to a particular question.

5.2 The Profile Of The Respondents Who Participated In The Study

The respondents age range was from 19 to 50 years. The majority were in the age group of 20 - 40 years.

Out of the 46 respondents 31 were males and 15 females. Most of them were Sinhalese and a few from other ethnic groups.

The majority of them were of a reasonable educational level, 17 having completed G.C.E. O/L and 20 having completed G.C.E. A/L. This contributed to the efficiency when administering the questionnaire and the quality of the data obtained (**Table 4**).

Table 4: Respondent Profile

		No. Of Responses
Age Group	< 20	6
	20 - 25	8
	26 - 30	8
	31 - 35	6
	36 - 40	10
	41 - 45	5
	46 - 50	2
	> 50	1
Sex	Male	31
	Female	15
Ethnicity	Sinhala	32
	Tamil	8
	Others	6
Educational Level	Below O/L	6
	G.C.E. O/L	17
	G.C.E. A/L	20
	Over A/L	3

6. RESPONDENT PERCEPTIONS OF GANJA

6.1 Perceptions Of Ganja As A Drug

Respondents, both male and female perceived Ganja as a narcotic drug. Both females and males also consider it to be a substance of an addictive nature. However, whereas the male consider it to be hazardous to health, females probably due to their ignorance or lack or experience, do not hold the same point of view (**Table 5**).

Table 5: Respondent Perceptions Of Ganja

	Male	Female
Perceptions of Ganja as a drug		
It is a narcotic	12	4
Hazardous to health	7	1
Addictive	4	2
Medical	2	1
Stimulant	2	0
Knowledge of Users		
Know users	27	5
Do not know user	4	9

6.2 Knowledge Of Users

Many of the male respondents admitted to having known a user of Ganja whereas a majority of the females did not seem to have any knowledge of or any association with users. This maybe due to the fact the drug use among females is low in Sri Lanka as in many other countries, and also use of Ganja among females is not often heard (**Table 5**).

6.3 Perceived Profile Of User

To determine this the responses were not categorized into male and female as the differences did not seem very significant, nor many responses received from the females. Most of the respondents were of the view that the majority of the users were in the age range 16 - 20 years, generally between 16 - 30 years. This incidentally is the same age range for drug users in Sri Lanka for any type of drug.

Ganja users are casual employees or are unemployed, not very different from Heroin users. Occupation of Ganja users when probed seemed to be confined to particular groups like laborers, shepherds, fisherman and farmers, making it a recreational habit among sub-cultures or an escape from extreme poverty.

Table 6: Perceived Profile Of User

	Number Of Responses
Age	
16 - 20	19
21 - 25	17
26 - 30	14
31 - 35	10
36 - 40	10
Over 40	6
Occupation	
Employed	1
Casual	19
Unemployed	7
Ethnicity	
Sinhalese	24
Tamil	8
Others	11
Social Class	
High	0
Middle	6
Low	13

Most of the Ganja users are Sinhalese followed by Muslims and some Tamils.

Social class of the Ganja users as stated are mostly from the lower classes or the middle. This perception may be due to the fact that knowledge on Ganja users in upper social strata, are restricted, since such use takes place in exclusive settings (**Table 6**)

6.4 Ganja User Patterns And Trends

Many of the Ganja users seem to be consuming it several times per day or only once per day, which is indicative of a high frequency of use.

Most of the Ganja users are continuing consumption as an escape from problems or due to addiction or habit.

Table 7: Ganja User Patterns And Trends

	Number Of Responses
Frequency of use	
Once per day	10
More than one per day	11
Once per week	1
More than once per week	2
Once per month	2
More than once per month	2
Reasons for users	
For fun	3
To get a high / feel good	2
Problems	7
Addiction / Habit	5
To look masculine	2
Influence of others	2
Develop an appetite	1
Place of use	
Home	5
Friend's home	9
Outside locations	14
Others	6
With whom they use	
Alone	12
Friends	28
Family	0
Others	0

The recreational use for fun does not seem to be quite so popular.

Many consume the drug at outside locations, which when probed were indicated as beaches, jungles, work place or vehicles. The next popular place for use seems a home of a friend which goes to show that the consumption by some users is carried out in groups. This is further established by the fact that the majority consume it with friends, whilst a few alone, but never with family.

The family values seems to act as a deterrence still in Sri Lanka even for the use of a drug like Ganja which had a semblance of cultural acceptance. Social approval seems to be a factor which could promote Ganja use, especially among sub-cultures (**Table 7**).

6.5 Perception On The Use Of Ganja

Both males and females believed that Ganja use causes health consequences.

Most people also believe that Ganja use is increasing. This is a very significant response with 30 positive answers compared to 2 negative. Reasons given for this increase is that it was used before Heroin, that the cost is low and there is less fear of police raids.

Many perceive use of Ganja as a problem to everyday life and that users mostly encountered problems with their families, occupation, neighbors and was also prone to criminal behavior. Criminal behavior could be associated more to intoxication than, to maintenance of the drug habit. As many stated that it could be bought for as little as Rs. 10/= for a bundle. The price according to users has increased from 50 Cents to Rs. 10/= which could be related to a growth in demand, or increased law enforcement.

Ganja is accepted to create adverse effects on health as agreed by both male and females. The types of health consequences perceived was the inability to walk, frequent coughing, tremors chest pains, mental illness, weakening of eye sight, complication with heart and nerves.

Ganja use is categorically perceived as impairing everyday functions and dangerous (**Table 8**).

Table 8: Perceptions On Use Of Ganja

	Number Of Responses	
	Male	Female
Whether Ganja affects health?		
Yes	29	12
No	1	0
Increase in Ganja use		
It has increased	30	
It has not increased	2	
Is use of Ganja a problem?		
Yes	24	
No	7	
Problems encountered by users		
Family problems	31	
School problems	18	
Occupational problems	22	
Criminal behavior	23	
Problems with neighbors	21	
Does Ganja use impair everyday functions?		
Yes	29	
No	3	
What do you think of the morale of the Ganja user?		
Weak	29	
Not weak	2	
Do you think Ganja use is dangerous?		
Yes	39	
No	2	
Cannot say	1	

Ganja users are perceived as those having a low morale. The impressions or opinions of Ganja users as received from the respondents are as follows (**Table 9**).

Table 9: Opinion/Impressions Of Ganja Users

Types Of Responses
They are a burden to self, country and society
Their life is shortened
They are ignorant of consequences
Their behavior is different
They have low self-esteem
Their knowledge levels are poor
They are physically weak
They are not law abiding
They are devious
They are persons looking for short term pleasure at low cost
They are aimless without any goals in life

6.6 Consequences Of Ganja Use

The respondents reasons for considering Ganja as dangerous varied from personal, social, economic and cultural problems. The following is a list of the most identified reasons (**Table 10**).

Table 10: Reasons Why It Is Dangerous

Types of Reasons
It has social economic and cultural consequences
Causes addiction and mental depression
Dangerous to health
Dangerous because foreigners too use it
Lead to family problems
Promotes violence and theft
Destroys one's life and future
Financial burden on family, could lead the wife to become a prostitute

Twenty nine respondents believes that Ganja leads to the use of other drugs, or precipitates, complicates and deepens the involvement with drug problems. However,

5 respondents did not agree with this view (**Table 11**). The type of drugs that Ganja use could lead to were cocaine, heroin and morphine.

Table 11: Is Ganja A Stepping Stone To Other Drugs?

Category	Number of Responses
Yes	29
No	5

6.7 Ganja Compared With Heroin

The number who responded to the question "Whether Ganja is more popular than heroin", being 12 agreed unanimously that Ganja is more popular. No one responded to the contrary, indicating that it has better social approval than heroin. This could very well be a risk factor which could lead to a growth in the prevalence quantum.

However, it is noteworthy that 33 of the respondents consider heroin to be dangerous whilst 6 consider both to be dangerous, and only 3 deem Ganja as dangerous. This too is a factor which should be noted for enhancing awareness as a prevention measure to stop the growth of Ganja use (**Table 12**).

Table 12: Ganja Compared With Heroin

	Number Of Responses
Is Ganja more popular than heroin?	
Yes	12
No	0
Comparison of Ganja with heroin in terms of danger	
Heroin	33
Ganja	3
Both	6

Reasons given by the users as to why heroin is considered more dangerous than Ganja is as follows (**Table 13**).

Table 13: Reasons Why Heroin Is More Dangerous Than Ganja

Reasons
Fast addiction
Easy availability
Causes mental depression
Leads to thefts and crime
Youth are a risk
Difficult to get out of addiction
More costly
Physical deterioration
Affects blood circulation and the brain
Can pass the habit to others

7. DISCUSSION AND COMMENTS

Ganja has been used in Sri Lanka, for traditional purposes for centuries. Recently several countries have sanctioned limited use of Ganja, though it is still illegal in Sri Lanka. With the emergence of heroin use the popularity of Ganja as a drug of choice seemed to have waned for sometime. However recent information informally received indicated the possible emergence of Ganja once again as drug of abuse. Indications that school children abusing a adultered product of the *Ayurvedic* medicinal substance called "*Madana Modaka*", which is freely retailed by small boutiques is a matter for concern. Easy accessibility, availability of Ganja to young persons, Police focus on heroin the current havoc drug in Sri Lanka, the stigmatization of heroin users, and the perception that Ganja is socially accepted as a recreational drug by particular segment of the elite, may well lead to increased use of Ganja.

This short study therefore sought to understand the current prevalence, practices and perceptions of Ganja and how SLANA could develop the information for developing prevention strategies for Sri Lanka.

Ganja cultivation and production is restricted to particular areas of Sri Lanka. Recent detections however reveal that Ganja is now being grown in the Eastern Province, and area within the conflict zone. The Police arrests and seizures for the past year seems to show a slight increase, including a price fluctuation which may be an indication of increased demand or stepped up enforcement vigilance.

Heroin users consumption of Ganja, is limited to experimentation or sporadic use, reporting a distaste for it after the development of addiction to heroin. However the initial use of Ganja often occurs at much lower age than heroin, even below 10 years.

This maybe due to accessibility and social acceptability. Whereas heroin use on a single occasion could well result in the user being labeled a "*Kudu Karaya*" (locales for heroin use), it is not so in the use of Ganja. However the age range for initiation for both heroin and Ganja remain at 16 - 20 years.

For both Ganja as well as heroin users, curiosity appears to be the primary reasons for first time use, followed by peer influence.

For heroin users Ganja appears to be an introductory drug in which they soon loose interest.

Examining the general perceptions on Ganja a slight variance, in opinion is shown as many people believe that Ganja is used for escaping problems. This probably may be due to the fact that the strongest contributory factor for continued use is escapian, but the choice of drug varies according to the setting, cultures and belief's. Urban low classes believe Ganja to be a soft drug, not sufficiently potent to serve their need.

The social perception of the profile of a Ganja user does not seem very different in population characteristics to that of a Heroin user. A male in the age range of 16 - 30 with out much education, casually employed, belonging to the lower social strata.

The majority of male respondents stated they knew Ganja users whereas only a few of the females respond positively to this question. This may be due to the fact that in Sri Lanka the female association with illegal drugs is still minimal, and confined to particular groups, such as commercial sex workers who according to reports, prefer heroin and prescriptive drugs to other substances.

All respondents categorized Ganja as a narcotic, but while the male respondents believed that Ganja had health effects, the female did not unless directly asked, but believed it to be "dangerous".

On the whole Ganja is perceived as a "soft drug", and not as "dangerous" as heroin. Unlike in the case of heroin Ganja is not perceived to be linked to criminality, although it may lead to aggressive behavior.

In the absence of any preventive work there is every likelihood that Ganja consumption should increase. Whether this is more acceptable or less dangerous than heroin consumption is a matter for debate. The only fact that cannot be argued is that Sri Lanka loses billions of rupees in the illegal importation of heroin.

PART 2

EAST ASIAN STUDIES

AN ETHNOGRAPHIC INTERVIEW OF HEROIN ABUSE IN CHINA

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Heroin is the most widely used substance of abuse in China. The majority of the abuser population are young males in age group of 20 - 30 years old. It is necessary to conduct an ethnographic study to identify qualitatively the addictive individuals' life events and their thinking in order to understand and to find solutions to the problem of drug abuse.

Subjects And Procedures

Altogether five heroin addicts (4 males and 1 female) between the age of 26 - 35 years old were selected. They were all merchants, two were self-employed and three were staff of a commercial company. The first interview was conducted on three and the second on two subjects in one treatment unit in Beijing. A special room was prepared for this purpose, the conversation between respondents and the reviewers proceeded in a free and unrestrained atmosphere, and it was recorded by a staff in neighboring room. The data were then sorted and summarized.

Findings From The Interview

The subjects interviewed had good economic condition, allowing them to idle their life in pleasure-seeking (eat, drink, and be merry), they got bored with the pleasure formerly enjoyed, and attempted to seek new avenues for entertainment. This was an important reason for them to initiate drug abuse. They felt that drug abuse was a super class of enjoyment and considered it as a flaunt of their richness. They were not aware of the harmful consequences of drug abuse on health and society. Another reason for initiating drug abuse was the negative life events they encountered which dispirited them from further exertions and pushed them to seek drugs for extrication from predicament.

The price of heroin in the black market ranged from 33-41 USD/g to 123-247 USD/g, depending on purity of the drug. The daily consumption of heroin was 1-1.5g. The high expenses for maintaining the drug abuse habit resulted in the wane of personal economy, one of the respondents told the interviewers that the expenditure for his drug habit caused him to lose as much as RMB two million yuans (247 thousand USD) and he was forced to sell off his valuable properties (house, car etc.).

The patterns of drug use were smoking (drug mixed into cigarette), 'chasing the dragon', or intravenous injection (some of them used the so-called 'booting' procedure, namely drew back the blood into the syringe after injecting drug, then injected the blood back to the body and repeated such manipulation for several times). Four of them were poly drug abusers with a variety of miscellaneous drugs: dihydroetorphine, pethidine, diazepam, triazolam, tramadol; usually they drank alcohol before but stopped drinking after getting the drug habit. They told the interviewers they had experienced that concurrent use of alcohol might 'antagonize' the euphoria caused by heroin and be easy to induce toxication. In contrast with alcohol, heroin addicts usually increased cigarette smoking (by 1 - 2 packets) after getting the drug habit; it seemed that cigarette smoking enhanced the euphoric effect of heroin.

The life style of the addicts altered significantly. They usually went to bed after mid-night (at 3 - 4 am) and woke up at noon. After taking drugs they were always drowsy. The appetite was poor and usually they only had one meal per day and mainly took fruits. Sexual appetite was low or absent, amenorrhea happened in female addict after getting into the drug habit.

The personality of subjects changed quite a lot, they became unsociable and eccentric, liable to stay alone and were selfish. They had low capability to cope with negative life events and always held pessimism and took a passive attitude on them. The craving for drugs reinforced them to do only one thing, namely drug seeking and drug taking. One respondent told the interviewers whenever he obtained some money, he called a taxi and rushed to the place illegally selling heroin, to purchase the drug, and he was too impatient to wait and used it immediately on the way back.

The conclusion was very clear, it was entirely important to take strong measures for implementing demand reduction strategy, to conduct prevention programs, especially the primary prevention of drug abuse, i.e. preventing the drug-naive high risk population (young people) from experimenting and using substances of abuse. Secondary prevention was also important to provide treatment and rehabilitation measures to help the addicts get rid of their drug habit, reducing the demand of this population on illicit drugs, directly or indirectly contributing to harm reduction strategy (the tertiary prevention).

OPEN ENDED INTERVIEWS

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INTRODUCTION

The interviews were conducted in a government aftercare center and '*rumah pengasih*' a non governmental body for addict's cum HIV carriers. All interviews were conducted at the garden and not in a class or special room. The situation was to get a better response and understanding from the respondents. Most of the addicts were selected by their head or officer in charge of the house. All interviews were conducted in Malay, the national language.

Firstly, it began with an orientation session. The interviewer introduced himself and informed the respondents that the session was not to teach or counsel them. They accepted it and were very happy because the interviewer did not record the conversation. The interviews were conducted in the morning and involved 7 respondents.

2. INFORMATION FROM INTERVIEWS

Majority of the addicts admitted that they use syringes and even one addict always carried extra needles with him. About 43 percent of the sample used drugs by 'chasing the dragon' (inhale) as they were afraid to use needle. They heard about injecting but were afraid to buy syringes because they thought that it was a controlled item. All addicts who used syringes are HIV carriers and only one of them is married. They could not remember when they started using needles but the declining purity of drugs was instrumental for their action. All IVDUs felt a better "high" by using needles than chasing.

All respondents gave different answers on estimated expenditure for drugs. One person spent RM50.00 (USD 20) per day to buy drugs and the other respondents bought as many as drugs as possible. One addict bought drugs on a monthly basis after he drew his monthly salary. He used the drugs on a daily basis. If he became hooked and used all the drugs for that month or felt short of supply of drugs, he had to borrow money from friends or parents to buy drugs. Majority of the addicts bought drugs on sharing basis. They would ask one of their friends to buy or they themselves bought the drugs. The ex-army and ex-navy respondents bought drugs on weekends with friends and shared the drugs. Normally they used drugs at the municipality garden or beach.

Majority of the addicts used heroin. However it was called by a different local name. Some called *'cek mek'* (sister), 'benson' (cigarette brand), *'lidi sate'*(sate stick), *'ubat'* (medicine) or *'barang'* (goods). When asked about new drugs, they informed that they were afraid to use the drugs. Only 20 percent of the addicts knew about codeine. The street name is *'Pok Teh'* (uncle) or *'Kopi O'* (black coffee). This is the code word to buy codeine. One addict had an experience with brown sugar and vomited 2 or 3 hours after taking those drugs. The incident happened 10 years ago. Two addicts did not feel anything bad or vomit after taking the drug; they were newly identified addicts but used drugs since 1991 and 1994. These addicts usually use drugs four times a day or as many drugs as possible until they had no money. They can also obtain drugs by loan or cheat their parents by asking the money to buy something else but ended up with drugs. The other way to get money was by stealing or cheating. Normally a lot of friends can provide drugs free of charge. They can be a good master mind in pick pocketing and stealing activities.

Most of the respondents had used drugs to feel like a champion (jagoan). This is a classic example of peer group influence. Youths usually want to be recognized on par with everyone in the group. They bought drugs on their own without being forced or offered free. One respondents took drugs because he thought that alcohol or cannabis were mild drugs and would not give him any 'extra feeling'. Majority of addicts thought that if they take drugs they are better than their friends. They would be brave and nobody could challenge them. A few of the respondents felt proud of their status compared to other youths.

One of the questions asked was the reason of relapse. Various answers were given. One addict admitted that the could not control himself. He remembered after the 16th month in the center; his close friend offered him heroin and immediately he took the drug. He could not remember why but only realized and cried after he had 'chased' the drug. One of the respondents stopped taking drugs for two months and stayed inside his house. After feeling well his wife asked him to get a job. On his way to the office, he lost his confidence and used drugs to help him. After taking the drugs, he went for the interview and got the job immediately. Some respondents could not control their mind and ran from the center or their house. The first thing they did was to ask their friends to get drugs for them.

Three respondents relapsed because they could not control their bodily urge, mind and sickness. The symptoms were headache, giddiness, insomnia, blockage in mind and voices calling them to take drugs. One addict was afraid to see the public and only drugs could help him. He used drugs to feel brave so that he could meet people.

Respondents were also asked whether they could improve their life style or kick the habit. Most of the respondents said that they could not face society because of the stigma. The societies still treat addicts as 'bad people'. They were afraid that their neighbors would give bad names to them, accuse them of stealing if anything was missing from their house or in the village. They did not know whether the people who

accepted them are doing in good faith or just to please them occasionally. Only one respondent gave a different response. He felt that one must be brave enough to face the public. He was prepared to see as many as possible including those who branded him as 'bad people'. He was prepared to hear the bad titles or the bad news about him. Facing the consequences is part of life and as a human being he must face the real life.

3. FINDINGS

It is not a new phenomenon in Malaysia to see drug addicts relapse and use heroin but among the significant findings are:

- The effects experienced from taking cough syrup (codeine) is better than heroin. (The purity of heroin is getting lower and codeine which contains morphine is available only at the border).
- *'Lidi sate'* (sate stick) and 'benson' (cigarette brands) are new code names for heroin in the 90s.
- *'Pok Teh'* (uncle) or *'Kopi O'* (black coffee) is a code word for cough syrup with high content of morphine.
- Majority of the addicts would refrain from facing the public.
- Some of the addicts use syringes widely but some are afraid to do so.
- The IVDUs do not know the consequences of sharing needles.
- Addicts felt that by taking drugs they can get better and gain confidence to meet people.

4. SHORTFALLS

- The interviewer could not remember all information given by the respondents.
- Mix up of information given by the respondents, and could not determine which information was given by which respondents.
- Time consuming.

5. CONCLUSION

From the findings the Anti Narcotics Task Force of Malaysia could do indepth research in the following areas:

- New street names of drugs.
- The purity of cough syrup (codeine).

PRIMARY DRUG PREVENTION IN MALAYSIA

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INTRODUCTION

Drug abuse and illicit trafficking has affected almost every country in the world and the number of drug abusers has increased dramatically in most countries. The fact is where drugs are produced, transited and trafficked there will be drug abuse. Clearly, drug abuse and illicit trafficking in drugs are problems no longer confined to small segments of a given population. The drug problem has enticed, captivated and, in the absence of effective control and prevention policies will ultimately destroy people from all walks of life. The growing drug menace has invaded homes, the workplace and educational institutions, affecting individuals of all ages and classes. Moreover, the spread of corruption, violence and terrorism linked to the illicit traffic in drugs, undermines the very security and political stability of nations.

The drug abuse problem in Malaysia is not new. In the early 19th century, there was a major influx of migrant workers from China and India who respectively had opium and marijuana users amongst their populations. Opium was sold in government run shops and was a major source of revenue for the Colonial Government. While the latter regulated the importation and sale of opium, the addiction problem was not necessarily confined to the Chinese population. There was a spill over - albeit small, to the indigenous population and migrant Indians.

The situation changed dramatically in the 1960s when the following characteristics of drug use emerged;

- An increasing number of young people (those between the ages of 20 - 30 years) were involved;
- The type of drug used was no longer opium, but its derivative heroin and psychotropic substances;

This change in drug abuse pattern apparently resulted from the following reasons:

- The influence of the hippie culture which was in vogue in the 1960's;
- An influx of foreign tourists coming to holiday in Malaysia. These included American soldiers coming for R & R who brought along a supply of heroin for their own consumption;

- An increase in the production of opium and its derivatives in the neighboring producer countries in the 1980's;
- Malaysia's proximity to the major opium producing area, the Golden Triangle;
- Malaysia's advanced communication systems and infrastructure that made it an ideal transit country;
- The long coastline and borders with all ASEAN neighbors exposed Malaysia to entry / transit of all forms of drugs;
- Some of the drugs that were brought in to meet the demand for the foreign tourist was diverted to the local youth population. This was further aggravated with the end of the Vietnam War. American soldiers, the main consumers of heroin, no long came for their R & R. The traffickers had to look for and create a local market.

2. CURRENT DRUG SITUATION

Malaysia is largely faced with an addiction problem. There is no opium cultivation in the country. Opium and its derivative substances are all brought into the country from neighboring producing area. There is some processing activity as evidenced from a number of illegal laboratories found. As drugs are brought into the country there is an outflow of valuable foreign exchange which is used to purchase them.

The cumulative figure from 1980 to December, 1995 now stands at 162,859 of first time addicts per year, this average about 6,263 detections per year. The addiction problem deteriorated after the end of the Vietnam War when local drug dealers resorted to pushing drugs to the local youth. There was also an excess of supply of heroin with the lowering of demand from the American forces that came for their R & R to Malaysia. The number of drug dependents began to increase and the peak was reached in 1983 when 14,624 addicts were detected for the first time. The lowest number detected was in 1989 when 6,960 drug users were detected for the first time.

The vulnerable age group for drug abuse in Malaysia are those between the ages of 15 - 29 years. The addict profile shows that 36.5% are between the ages of 20 - 24 years, 26.8% are between the ages of 25 - 29 years and 12.2% are from 15 - 19 years old. Ninety-eight percent of those detected are males and 79% use heroin as their preferred drug. The main cause for involvement in drug use was peer influence (50.2%) and seeking pleasure (14.4%). Approximately 40% were manual workers and 27% were unemployed. In terms of educational attainment, 35% had at least attended lower secondary school (Junior high school); 31% upper secondary school (Senior high school) and 1.4% had attended college or university. This indicates that those involved in drug abuse are intelligent people who probably know the consequences of drug abuse.

3. POLICY RESPONSE

The year 1983 marked a watershed in the Malaysian Government's approach in combating the drug menace. The Government elevates the problem to an unprecedented level of priority by declaring it a primary security concern so that priority, commensurate with the gravity and seriousness of the illicit drug problem, can be given to contain this threat.

Pervasive drug abuse has had a proven history of not only impeding the social development of a country but taking away scarce human resources that are urgently needed for the economic development. Even worse, narcotics production and trafficking is always associated with corruption, increased criminal activities, violence and intimidation.

Until the implications and consequences of drug abuse and trafficking are seen in this context, counter measures will neither be effective nor adequate. In recognition of the growing urgency to effectively combat this problem in Malaysia, a National Anti Narcotics Committee was established under the National Security Council of the Prime Minister's Department in 1983 with the Rt. Hon. Deputy Prime Minister as Chairman. The Rt. Hon. Deputy Prime Minister has, since May 1986, assumed the Chairmanship of this Committee. The shift to the National Security Council, which is the foremost security coordinating body in the country is intended to give the war against illicit drugs the priority and urgency it deserves.

This Anti Narcotics Committee of the National Security Council is charged with the overall responsibility on all matters relating the control and prevention of drug abuse and trafficking in the country.

An Anti Narcotics Task Force, operating at National, State and District levels, was also established to assist the Anti Narcotics Committee in initiating, coordinating and monitoring the anti narcotic programs / activities and operations of the various implementing agencies, including non-governmental organizations involved in the anti-drug work.

In 1984, the Anti Narcotics Committee of the National Security Council requested the Anti Narcotics Task Force with the cooperation of the other implementing agencies to propose a Five Year Action Plan to eradicate drug abuse. This Action Plan was to incorporate the current international trends in drug abuse prevention. The Anti Narcotics Committee approved the Action Plan at its meeting in January 1985. The Action Plan had its principal area of action in the prevention area, specifically primary prevention. This was a departure from the previous strategy that emphasized enforcement as the principle area of action.

4. PRIMARY PREVENTION

The Five year Action Plan gives top priority to PRIMARY PREVENTION which is categorized into three fields of action:

- preventive education
- information; and
- community action

The primary prevention efforts are aimed at:-

- ♦ encouraging youths to resist drugs;
- ♦ changing the perception of society towards drugs by highlighting the problem of drug abuse;
- ♦ providing meaningful alternatives to young people;
- ♦ creating abhorrence for drugs; and
- ♦ involving the community in prevention efforts

These objectives are to be achieved through:

- ■ school-based programs
  - o curriculum
  - o co-curriculum
  - o teacher education
- ■ community-oriented school-based programs
- ■ community awareness / action programs

School Based

The preventive education efforts in schools involve drug abuse prevention curriculum, co-curriculum and teacher education. Education in Malaysia is governed by the Education Act 1963 which provides the administrative framework for schooling. A provision incorporated into this Act governs the planning and implementation of school curriculum. The Central Curriculum Committee which is chaired by the Minister of Education is entrusted with this responsibility.

The Anti Narcotics Action Plan as adopted by the Government in 1985 has given top priority to preventive education as a long term vehicle to curb drug abuse. The Minister of Education, as a member of Anti Narcotics Committee, is well placed to directly instruct his Ministry to implement decisions.

In the line with the requirements of the National Anti Narcotics Action Plan, the Education Ministry has drawn up plans and strategies with the following objectives:-

- minimize the number of school children using psychoactive and addictive drugs through early identification;
- provide guidance to high-risk students through activities which would encourage social functioning, self-worth, emotional development, and independence in decision-making;
- create a core of teachers as guidance counselors in schools; and
- encourage parents to involve in the drug prevention activities in schools through the Parent-Teacher Association.

The objectives are to be realized through the following:

- ♦ to strengthen drug abuse preventive education elements within the curriculum in subjects like health science, living skills, religious studies and moral education;
- ♦ to ensure that students take an active part in co-curricular activities;
- ♦ to provide counseling sessions to help students having drug problems;
- ♦ to provide special activities for high-risk students;
- ♦ to encourage involvement of non-academic staff like school administrators, hostel wardens, canteen operators, school bus operators and clerical staff in anti drug activities through the setting up of Anti-Drug Committees in schools;
- ♦ to give information and guidance to parents on their role in school drug prevention programs.

Towards this end a number of programs have been implemented. These include:-

New Integrated Secondary School Curriculum

Drug abuse preventive education elements have been inserted in the secondary school curriculum beginning from the lower secondary level (ages 12 - 14). The new integrated secondary school curriculum will also serve to provide students with coping skills to overcome problems associated with adolescence. The new curriculum includes inter alia:

- Social and Personal Skills Development

- an understanding of human growth and development, especially the physical, emotional, psychological, and social changes that occur during adolescence.
- the development of skills to cope with the problems associated with growing up.

- Drugs, Safety ad Health
  - the importance of medicine to mankind;
  - the consequences of drug abuse.

- The Drug Problem in Malaysia
  - the drug problem from the social, economic and political viewpoints;
  - the consequences of drug abuse on security, peace and stability of the nation.

- Drug Problem in Other Countries
  - international co-operation

Mentor System In Schools

In secondary schools teachers are selected to act as mentors to problem students. A group of such students are placed under the general guidance of a teacher, who will act as a companion and confidante to these students. Through this system it is hoped that the problems faced by these students would be transient in nature and will disappear over time.

Training Of Key Communication Amongst Students

This is a program designed to provide leadership training to student leaders such as prefects and class monitors who will in turn act as role models in school. Adolescents are at an impressionable age and would at most times imitate their peers. By creating a kind of "positive pressure group" among their peers good values and habits would be nurtured.

Anti-Drug Badge Scheme

This program is aimed at training uniformed school groups such as the Boy Scouts, Girl Guides, Red Crescent Society, Cadet Groups, etc. as key communicators and provide positive peer influence in schools. Under this scheme a member of a uniform

group is required to undergo a training program on drug related matters for a period of one to three years at the end of which a proficiency badge is awarded.

The objectives of the Anti Drug Badge Scheme are as follows:

- to equip the participants with knowledge and skills so as to be competent in disseminating anti-drug messages;
- to enable the participants to play the role as communicators among their peers, family and society at large;
- to inculcate appreciation of anti-drug activities through first-hand practical involvement;
- to continue serving voluntarily in anti-drug activities after leaving school.

During the duration of the training programs, the participant maintains a LOG BOOK and records all activities attended or participated in, such as:

- Talks on drug matters;
- Visits to One-stop Treatment Centers of Rehabilitation Centers;
- Publicity Activities - posters and messages;
- Participation in competitions with anti drug themes;
- Activities in disseminating or communicating anti-drugs messages;
- Collection of cuttings of printed materials on drug related matters;
- Peer-communication regarding drug abuse or drug matters;
- Reports on drug abuse and drug trafficking in the country;
- Personal resolutions or pledges for the future;

Self Achievement Camp

This program know as Self Achievement Camp is carried out on the basis of either individual schools or a cluster of schools at a district level. It is usually run in co-operation with PEMADAM, the National Association for the Prevention of Drug Abuse which provides the funding. It concentrates on high-risk students who regularly show behavioral problems that could lead to drug abuse. "High Risk", students are identified through the following criteria:-

- students who have experimented with drugs;
- students who frequently smoke;
- students who are constantly or regularly involved in truancy, theft or commit vandalism;
- students who are lagging in studies or show open disinterest in schooling;
- students who constantly keep away from co-curricular activities.

■ In the course of participating in the camp programs, students are involved in multifarious activities that generate and enhance their understanding and awareness of self-development in relationship to communal and social issues. The core of the camp programs revolves around group-training or group dynamics and the inculcation of spiritual and religious values.

Urine Screening In Schools

Urine screening in schools has been instituted as a preventive measure and a deterrent to drug taking and not as a punitive measure. It is an exercise in early intervention. With the blessing of the State Education Departments, PTAs and the local community, urine screening has been carried out in a number of schools. With the introduction of urine screening in schools, it is hoped that potential drug users amongst students would be quickly identified and the problem nipped in the bud.

Peer Counseling Program

This program aims at using peer influence to prevent high-risk school children from being lured into drug abuse. Studies undertaken on the pioneer programs showed that students were responding well to their peers. Peer counseling facilitators have now been trained and are undertaking the training of peer group counselors throughout the country.

Colloquium For Students

One significant departure from the norm of only involving adults in seminar / workshops was the convening of a colloquium involving secondary school students. This program emphasized Interpersonal Skills Development. Participants to this colloquium deliberated on the drug problem encountered by them and in their schools and suggestions were solicited on possible counter-measures to overcome it. The

response to this colloquium from students was overwhelming. This has resulted in the formulation of a number of tangible proposals for implementation in schools.

Teacher Training Programs

For the effective implementation of preventive drug education programs, there is a need to have a qualified corp of teachers. In Malaysia, there are 24 teacher training colleges that provide teacher trainees with a 3 year training program on teaching methodology. In 1986, the teacher training curriculum was revised. In this exercise, a module was included to provide these teacher trainees with a working was included to provide these teacher trainees with a working knowledge of preventive drug education in the classroom.

♦ Besides the teacher training institutes, two institutes of higher learning have introduced courses in counseling. These course have been introduced to meet the need for a trained group of counselors to provide assistance to problematic students who are at risk to drug abuse. In addition to these specialized programs an in-service training program to train counselors has been initiated at one of the teacher training colleges. This program provides an introductory 6 week course, followed by a 6 months course and finally those who show an aptitude in counseling are selected to attend a one year program to be student counselors.

♦ In Malaysia there are approximately 230,000 school teachers, both at the secondary and primary school levels. This large group of skilled personnel could be utilized for preventive drug education in the school as well as the community. Training programs are being undertaken to expose this group of teachers to provide them with a working knowledge to implement preventive drug education programs.

Integrated School-Based Community-Oriented Programs

These programs call for greater involvement of Parent Teacher Association (PTA)s, school alumni and increased membership of youth clubs amongst would-be school levers. This requires concerted efforts by the local community in introducing on-site programs / activities that will foster greater rapport and the development of more meaningful relationship in the community. Since 1972, it is mandatory for each school to have PTA. The PTAs have thus far only involved themselves in fund raising efforts. Drug abuse prevention programs call for an even greater role for parents to ensure that their children are not enticed by drugs.

5. COMMUNITY PROGRAM

Concentrated and Integrated Project for the prevention and eradication of drug abuse (CIP) entail the categorisation of various areas in the country as 'black' and 'white' according to the gravity and extent of the drug problem in the areas and subsequent activities aimed at 'cleansing' the area of undesirable and eliciting active involvement of the local citizenry in drug prevention efforts.

6. CONCLUSION

Evaluation of drug abuse control and prevention is very subjective. It is difficult to set out a clear set of guidelines to reflect what constitutes success. Evaluation of the success of drug prevention programs thus poses a challenge to the various implementing agencies. We, in Malaysia, too are confronted with similar difficulties. The commonly accepted norm is to use quantities of seizures, numbers of addicts identified, number of activities undertaken etc.

Since declaring the drug abuse problem as a threat to national security, the implementation machinery has been recognized. This reorganization has now facilitated a new determination to plan, implement and monitor drug abuse prevention efforts in the country. The reorganization has also resulted in clarification to the various implementation agencies, their respective roles and responsibilities. This, is particularly important to the implementation agencies involved in preventive education and information. It has resulted in more programs being organized and reaching a wider target audience. Initially there were three agencies involved in this task resulting in much duplication. With the setting up of a coordinating committee in the Ministry of Youth and Sports, this problem has now been overcome.

There has also been an increase in the amount of information programs launched using either the electronic, print or face to face communication media. The community is generally more aware of the drug problem and is more willing to come forward to provide information on known addict haunts and traffickers thus making the work of enforcement agencies much easier.

AN ETHNOGRAPHIC STUDY OF ECSTASY ABUSE IN THE PHILIPPINES

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INTRODUCTION

Although the abuse of Ecstasy has been reported in some Western countries since the early 70's, most drug authorities in the Philippines were unaware of this drug until a heinous crime shocked the people of Manila in 1992. A mother and her two daughters aged 18 and 9 were massacred, the 18 year-old after being raped by a gang of five men. It was only last year that the suspects were apprehended by the police. The suspects included a son of a popular senator. Investigative journalists were quick to probe into their personal background.

One news item depicted them as drug abusers who frequently used Ecstasy, a drug that is said to heighten sexual urge. Immediately thereafter, the Dangerous Drugs Board was bombarded with calls and queries from various sectors requesting for information about the drug. The NIDA materials sent by Mr. Kozel and those from the World Health Organization proved useful. Scrutiny of the reports submitted by rehabilitation centers revealed six admitted users of this drug. However many questions on the nature, characteristics and extent of its abuse in the Philippines were left unanswered. It is for this reason that our Agency decided to conduct this study.

2. SUBJECTS, METHODS AND PROCEDURES

In as much as Ecstasy is a new drug of abuse in the Philippines and very little is known about it, the researcher decided to elicit preliminary information from a small group of known Ecstasy abusers confined in two government treatment and rehabilitation centers. Focus group interviews were conducted with five (5) clients from each center.

Results of the preliminary interviews were used in coming up with the research questions and pertinent data collection procedures. It was decided that an unstructured interview method be used for the study and that at least twenty-five (25) be the target number of subjects.

Considering the foreseen difficulty of finding potential subjects, the snowballing sampling technique was used. In snowball sampling, the researcher identifies a small number of individuals who have the characteristics that he requires. These people are then used as informants to identify others who qualify for inclusion and these, in turn, identify yet others - hence, the term snowball sampling.

In this study, only those who have been regularly using Ecstasy for at least six months were included. The Ecstasy users interviewed at the rehab centers served as the initial contacts. From these confined users, information or referrals were sought to be able to identify potential subjects and their hang-outs. Anyone in the field who was able to successfully refer a respondent was given a fee of p 200.00 (approximately $7.70). The informants included a significant number of employees of the entertainment establishments which were frequented by Ecstasy users.

The purpose of the study was explained and the confidentiality of the information to be collected was assured to every respondent. Thirty-six (36) potential subjects were approached but only twenty-two agreed to be interviewed. The high refusal rate may be due to the fact that they belong to very wealthy families who regarded the interview as an intrusion into their privacy.

After securing the consent of a subject, an appointment was arranged for him to be interviewed. Each interview lasted for one and a half to two hours. In most instances, the interviewees preferred not to use a tape recorder to assure a no-holds-barred atmosphere.

Nearly all of the subjects belong to "Class A" socio-economic category. There were "Yuppies" or young urban professionals and spoiled brats who were party goers or "night owls". Their ages range from 20 to 40. Sixteen were males and eight were females.

3. FINDINGS

Ecstasy, in its pure form is 3, 4 - methylenedioxymethamphetamine (MDMA) and is structurally related to both amphetamine and hallucinogen mescaline.

It is in the form of tablet, capsule or powder. Its shape is like that of a pill, which may be round, flat or oval. Color varies from white, yellow or brown depending on its purity. The white is said to be the most potent or purest. According to the respondent, it tastes bitter. The effect of a tablet lasts for about four (4) to eight (8) hours depending on the body metabolism.

In the Philippines, a tablet costs $26 to $39 depending on its purity while the diluted form also called flying saucer costs about $15.00.

Its street names include X, rave, love drug, flying saucer and LBD (libido). The more popular route of administration is by oral ingestion. Some do it by snorting by which they can feel faster effects. However, this causes pain and irritation to the nasal passage.

At present, there is no known local manufacturer of the drug. Intelligence information mentioned USA, Europe, Australia and Canada as source countries. Local suppliers include some airline flight stewards. Since many of the users are wealthy and could frequently get in and out of country, they could buy the drugs themselves and bring the stuff to the Philippines.

Asked what are the immediate effects felt by the users after taking the drug, they said the drug caused them to become energetic, gregarious, happy, friendlier or nice to almost everybody. Everything seems beautiful and glaring. "There is a reverberating effect," claimed one woman-respondent. This explains why most users feel the effects inside the disco houses where they would dance the whole night without feeling tired. "There is a heightened tactile feeling that makes a touch electrifying and makes you go for sex with anyone in front of you," another lady smilingly added. One admitted having sex with five men at the same time. Asked if she felt exhausted, she said she enjoyed it and even went swimming the next morning.

Male subjects corroborated the answers of the female counterparts. They stated it is like having a "sunset superman" effect or experiencing a sustained or prolonged erection for hours and being able to delay the ejaculation.

How does one who have taken Ecstasy look like? Some responded by saying it is like one who has taken alcohol without the breath. They have glassy eyes and talk a lot. There is also an increased heart rate that caused palpitation. Increased sweating was also experienced by others.

Almost all of them said that after a feeling of ecstasy, a sudden drop of euphoria and depression comes in. That's why they have to keep on popping it every four or five hours.

The other activities that they indulge in after taking ecstasy, aside from dance and sex are listening to music or music trip. Some engage in mental intercourse or jamming which may involved sex talk.

How would they compare Ecstasy with other drugs of abuse or why do they prefer Ecstasy over the others?

Some said it supersedes the effects of other drugs like Shabu, Marijuana and alcohol. They don't go into "bad trip" or don't become "war freak". Instead they become friendlier or nice. Unlike shabu, they can go to sleep and eat well, if they want to. There is no paraphernalia needed and the Ecstasy is easy to conceal which makes it ideal for those who want to take it inside public places like disco houses.

Foreign literature provided us with information on its long-term effects. A Johns Hopkins University study published in the Journal of Neuroscience said the drug causes permanent damage to parts of the brain that produce serotonin, a chemical that

regulates mood, appetite and sexual function. The drug trims off axons - which produce serotonin - from brain cell, but it leaves nerve cells intact. The lack of normal axons and consequent loss of serotonin thus lead to depression, according to the study.

Since the drug contains amphetamine, our doctors concluded that it may have the same effects as Shabu among which are arrhythmia, psychosis and psychological dependence for prolonged use.

The researcher is still in the state of formulating the research conclusions and recommendations which will be presented to our policy and decision-making authorities. The implications of the findings to our drug prevention, treatment and police effort will be studied and properly addressed.

SYABU IN SABAH

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INTRODUCTION

Syabu or scientifically known as methamphetamine hydrochloride is becoming increasingly popular in the state of Sabah. It was first detected in 1991 in Sandakan and today it has spread to other major places such as Kota Kinabalu, Tawau, Keningau and Labuan. The drug is smuggled into Sabah mainly from the Philippines, where the drugs are manufactured in clandestine labs, and drug trafficking is believed to be carried out by Filipino immigrants in Sabah.

Syabu is commonly known as "ice-ice baby", "ice", "stone" or "syabu" among the addicts in Sabah. There is growing evidence that supply and consumption of syabu is increasing from year to year. The enforcement agencies have reported increase in seizure of syabu and arrest of offenders pertaining to this drug. From 1992 - 1995, 158.22 grams of syabu were seized and the amount of seizures increased to 605.482 grams until September 1996. There were 55 cases of syabu offenders for the year 1992 - 1995. In 1996 there were 188 cases which is an increase of 242%.

To gain a more comprehensive perspective on current syabu pattern and trends, the National Narcotics Agency launched a project to obtain information about syabu from individuals who currently use syabu and were familiar with the neighborhood where it was bought and sold.

To obtain information directly from syabu users, the National Narcotics Agency opted to conduct focus group study in Sabah. Over a period of one week, the National Narcotics Agency has completed the focus groups in two different places in Kota Kinabalu, Sabah.

METHODOLOGY

Site And Sample Selection

In June 1996, plans and guidelines for the focus group were developed. Kota Kinabalu, Sabah was chosen to conduct the focus group.

Seven participants were selected and they were divided in two groups. Group One consists of five Malaysian addicts. Group Two consists of two Filipino addicts.

Criteria for selecting focus group participants were: age; race/ethnicity; length of time using syabu; and the routes of administration (injection, inhalation, smoking).

The discussions were organized in two different places at different times. Group One held the discussion in one of the police building in Kota Kinabalu. Group Two had the discussion at the Coffee House of Shangri La Hotel, the next day.

The methods used to conduct the focus group are:

- Group discussion;
- Taping - which was agreed by the participants;
- Photographs - which was agreed by the participants; and
- Transcription of data.

The focus group was structured to give participants an opportunity to speak and to stimulate interaction during the sessions. Each session lasted for two hours. Confidentiality was ensured. Refreshments were provided during the discussion.

MAJOR FINDINGS

The Drug Scene

According to the syabu addicts in both groups, the drug scene in recent years has changed and syabu is one of the major reasons.

One of the participants from the local residence talks about syabu taking over:

> *"What's happening here now is that syabu is taking over other drugs and people can easily get the supply from the street. I know of a place where the supplier provides a place which can accommodate 5 - 10 persons to smoke syabu."*

A Filipino participant says:

> *"I think many addicts turn to syabu because you don't get the death penalty for this offense. It's just a few months in jail. So no big deal. Syabu is safer to carry around because it does not resemble drugs. It is crystal like. People don't even know you are carrying one."*

Terminology

All of the participants agreed that syabu is commonly known as "ice-ice baby", "stone" or "syabu" among the addicts in Sabah.

One of the participant adds:

> *"When you go to the dealer, you use the term "batu" to buy the thing. We don't say we want to buy syabu."*

Another addict describes:

> *"We use the term "main syabu" when we smoke this drug."*

Reasons For Taking Syabu

An addict who is doing small business in the market tells:

> *"It's better to go for syabu rather than drinking. The reasons why I take syabu is to stop drinking. To tell you honestly I'm a regular drinker and get drunk almost everyday. So one day my friend gave me this stuff to try. Amazingly, this drug enabled me to stop drinking. For the past 6 months, I've switched to syabu. For your information, I don't get high after taking syabu. My mind is okay and I'm sober."*

One participant gives his side of the story:

> *"I tried syabu out of curiosity. I just want to know how it feels when you smoke that stuff. After the first time, I wanted it for the second time, and the third time and at last I became addicted to it."*

Another participant who is formerly a "ganja" or marijuana addict confesses:

> *"I switched to syabu because of easy availability and I felt that the side effect is not so bad as ganja. I've been on syabu for the past few months. I feel great after smoking syabu. I don't really have the kind of withdrawal symptoms as I was on ganja before. This drug does not make me lose my head. I don't get high and I'm still sober after taking it."*

One of the addicts just says:

> *"I just do it for fun. I dared to try syabu because I know the chances of getting caught is slim. You know why? The reason is because syabu is odorless, easy to carry due to it's form (crystal like thing) and can easily be used in public without being detected."*

Another participant said that he uses syabu for recreational purposes:

> *"I use it to increase alertness. I can go on working without feeling tired and my self esteem is high. I can work till the next morning without feeling sleepy after taking syabu. Where ever I go, whatever I do, I don't feel out of place."*

One participant says:

> *"I take syabu to release my tension and to gain stamina for working purposes."*

Age Group

When asked regarding the age group who consume syabu, all the participants agreed that majority are of the age 20 to 50. One participants says:

> *"There are a few teenagers aged 17 and 18 who take syabu."*

Syabu Availability

All participants in the two group agreed that syabu are easily available today than a few years back.

An addict who is doing small business adds:

> *"There are quite a number of Filipinos selling this stuff. You go around the place, you get your choice of what you want to buy, whatever quantity you want to buy, as long as you have money. To tell you, it's done quite openly. As for me, just by the look, I can tell whether a person is a dealer or an addict."*

When asked how they were first introduced to this kind of drug, one participant replies:

> *"I was introduced to this drug by my friend. He gave me the stuff to try for free. It was good, I wanted to try it for the second time. That was how it started. Since then I started buying on my own."*

Another participant adds:

> *"When I first started on this drug, I got it free for a few times from my gang. Then when I knew where to get the stuff, I started buying it direct from the dealer. To tell you the truth dealers are everywhere. The market is the most popular spot, and the dealers are Filipinos."*

On questions regarding when do they buy the supply, one of the participants answers:

> *"Usually I buy the stuff in the evening after work. I take it early in the morning before I start the day."*

How Is Syabu Used

All the participants agreed that syabu is mainly taken by smoking just like "ganja" or marijuana.

One of the participants remarks:

> *"Syabu addicts usually smoke syabu by placing it on an alumminium foil. Then it is heated under a small flame until the solid Crystal turn to liquid. And then you inhale the resulting vapors using glass pipe or whatever that can be used."*

Another addict adds:

> *"When syabu is heated, its solid crystal turns to liquid. When it cools, ice reverts to its solid state and is therefore reusable."*

When asked whether they prefer to take syabu by themselves or in a group, majority said that they prefer doing it in a group.

An addict explains why syabu is taken in a group:

> *"It's very rare we do it alone. We syabu users don't like that. I don't know why but we just like to do it in a group, in order to get the feel."*

When asked about other modes of use they have heard of besides smoking, most of them informed of having heard about injection and snorting.

One of the addicts answers:

> *"I've heard about it but I've never seen addicts on the street taking syabu by injection. I myself am not keen on that method. It's risky and dangerous because it will effect our heart and other organs. And if you aren't lucky enough you'll contract AIDS. Maybe the hard core addicts might use injection."*

Another addicts adds:

> *"From what I heard, before it can be injected, syabu has to be ground into powder form and water has to be added to it. Then you take the syringe and inject the solution."*

When asked about snorting, one of the addicts answers:

> *"I've never seen an addict snorting syabu but I've heard of this method. Before you snort, the solid crystal is made into powder. Then you snort through the nose by using the one dollar note."*

Cost Of Syabu

In Kota Kinabalu, Sabah, the average price of syabu is RM 150 per gram and a packet of 0.03 gram is sold at RM 15 - RM 30.

When asked how much money is spent on syabu, one participant replies:

> *"It depends on how much money you have. As for me money is not a problem because I do*

> *business. I can buy the stuff in whatever amount I want. Usually I spend RM 20 - RM 30 per day."*

Another participant says:

> *"The minimum I spent on syabu is RM 10 but usually this amount is not sufficient for a day."*

The other addict adds:

> *"People can easily spend RM 1,000 per month on syabu."*

Quality Of Syabu

All the participants in both groups agreed that syabu can be categorized into 3 categories of quality. One of the participants says:

> *"Syabu that is available here are of 3 categories. The high quality one is crystal white, followed by the one which is a bit reddish and the lowest quality is called "tologong" (local name)."*

When asked what is the difference between the three, one of them replies:

> *"The highest quality one of course tastes the best and it's more expensive. Syabu of the lower quality tastes bitter."*

Another addict adds:

> *"If you have money than you go for high quality type. In times when you are broke, you'll go for whatever quality that is available, as long as you can smoke syabu."*

Apparatus Used

The focus group discussed the apparatus used to consume syabu. All of them have never seen the apparatus shown to them during the session. One of the participants comments:

> *"This apparatus is only used by the rich addicts and it is specially made for them. By*

looking at it I know it is costly. Not everybody can buy it."

Another participant adds:

"The normal apparatus used to smoke syabu are alumminium foils, two lighters and a straw."

Side Effects

There are 2 different opinions from the groups when asked about the dependency on syabu.

The Filipino addicts says:

"When you're hooked on syabu for quite sometime, definitely you'll be dependent on it. Like myself, I'm on syabu for more than three years. I'm addicted to it. Without syabu I can't work. I feel weak, pain in the chest, coughing and my state of mind is not normal."

When asked about the dependency on the drug one of the local participants answers:

"As for me, although I'm an addict, I'm not yet considered as a dependent to this drug. Without syabu, I'm still okay The only effect is that I don't have the kind of energy that I got after taking syabu. I only take syabu for stamina and I don't have the withdrawal symptoms."

When asked of other side effects besides the dependency aspect, one of the participants replies:

"One thing good about syabu is that you don't get drunk when you drink, after smoking syabu. No matter how much drink you take, you are still sober."

Another participant adds:

"With syabu you can work like a robot and you can go on working 24 hours a day without sleeping. Take me for instance. I'm running a business in the day time, and when I go back I

have to do the house chores because my wife is pregnant and I've got 7 kids to take care of. Without smoking syabu I don't think I can manage all that by myself".

One addict says:

"Syabu is not a kind of drug that makes you high. When you are on syabu, your mind works like a genius. You can go on talking like nobody's business. And you can memorize everything that you read when you are on syabu."

When asked about their appetite when consuming syabu, most of the participants said they don't feel hungry. One of them added:

"Usually I take my food first before I smoke syabu because if you don't, then you don't feel hungry until the effect of syabu is gone. That is why many syabu addicts are thin."

Although many agreed that the side effects of taking syabu is not as bad as ganja or marijuana, they admit that syabu does have effects if taken in a long run. One of them says:

"If you consume to much syabu in a long period, then you will feel the effects. It includes severe weight loss, aggressive behavior and long lasting psychological problems characterized by paranoia and hallucinations."

Another participant adds:

"Taking syabu on a high dose will make you an addict. You will feel your body trembling and you feel cold from your feet to your stomach, and pain in the bone."

Discussing on the characteristics of a syabu addict and syabu pusher, one of the participants gives his point of view:

"Pushers and addicts share almost the same characteristics. One thing for sure are their eyes. They have red eyes and blue black marks

below their eyes due to lack of sleep. They looked pale and thin."

When asked if they are willing to be tested at the hospital for the side effects, one of them replies:

"Yes I am ever willing to be tested to see whether syabu does effect me clinically."

All participants gave a good response and had an open discussion among them during the sessions. By having the addicts themselves as participants in the focus group discussion, it gave us a better understanding about syabu. The participants had assured us of their full cooperation in future surveys to be conducted on syabu.

SUMMARY OF FINDINGS

The findings were relatively consistent in both group whereby all agreed that the number of syabu addicts in Sabah is increasing from year to year due to easy availability of the supply from the Filipino immigrant dealers. Furthermore syabu offenders are not governed by the Dangerous Drugs Act 1952 which can lead to mandatory death penalty if found guilty. They are only charged under the Poison Act 1952 if convicted.

Addicts use syabu for a variety of purposes. Some take if for working and recreational purposes. There are some who smoke syabu as a substitution for other kind of drugs and alcohol and some take syabu out of curiosity.

Syabu addicts agreed that the mode of use is usually by smoking and most of the addicts are between the age of 20 - 50 years old.

Syabu that is available in Sabah are of three categories:

- Crystal white (the best quality)
- A bit reddish in color (the second best quality)
- "tologong" (local term used for the lowest quality)

According to them only the hard core addicts will have the side effects such as severe weight loss, aggressive behavior and psychological problems characterized by paranoia and hallucinations. Most of the addicts do not consider themselves as addicts.

The quotes in this paper were selected because they exemplify what was actually said by the syabu users who participated in the focus groups.

PRICE AND PURITY STUDY OF STREET DRUGS IN THAILAND

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INTRODUCTION

A survey team of the Office of the Narcotics Control Board conducted a survey on methamphetamine epidemic along the main highways of the country. The distance of this survey was about 1,400kms. The objectives were to identify the number of places where methamphetamine was sold, retail price and quality of methamphetamine both inside and outside the petrol stations located along the 2 main routes which covered the following provinces (**Figure 1**).

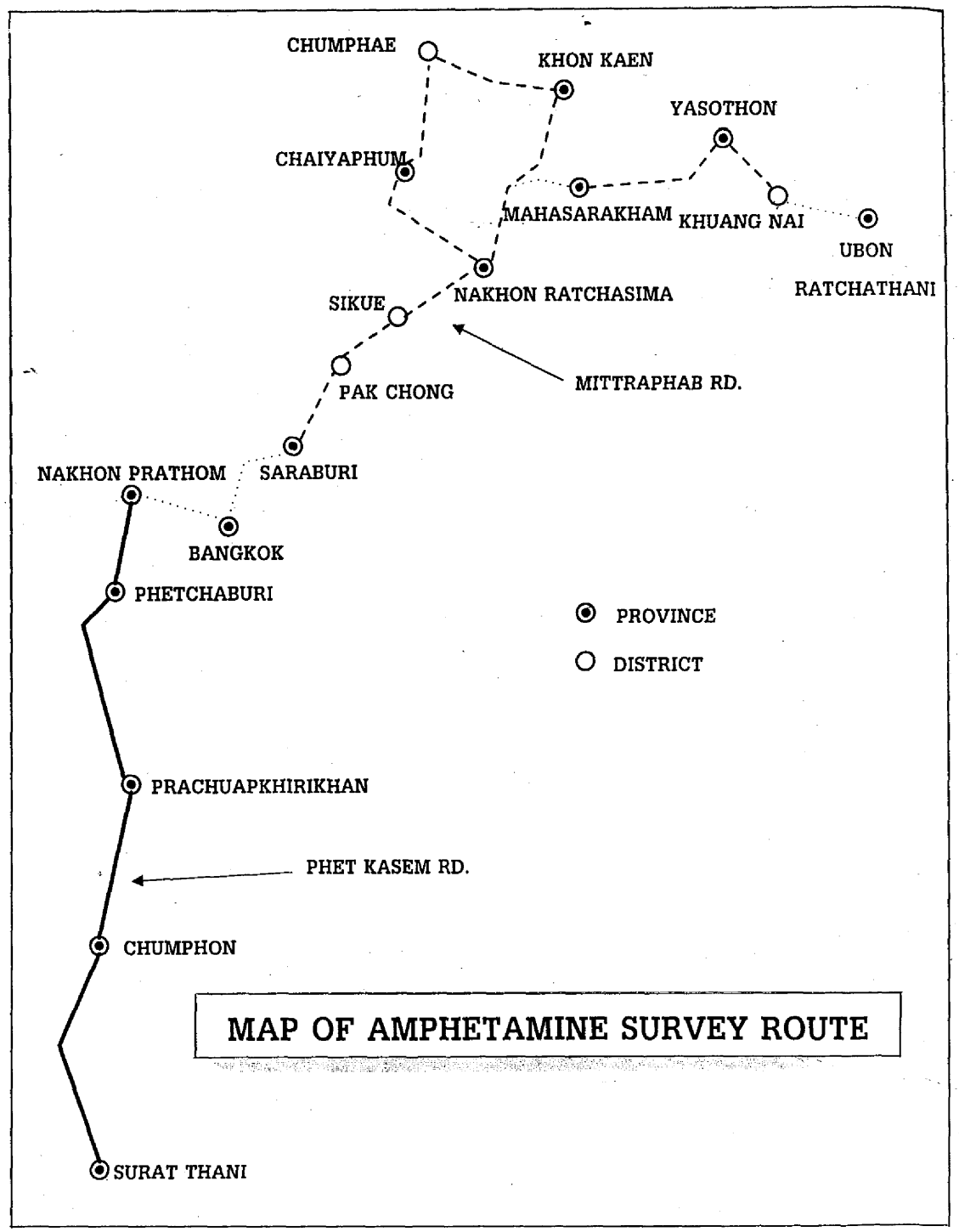
Route 1: Phet Kasem Road, the road towards the South. The survey started from Nakhonpathom, Phetchaburi, Prachuap Kirikhun, Chumphon and Surat Thani. The distance was about 600 kms.

Route 2: Mittraphab Road, the road towards the Northeast. The survey started from Saraburi, Nakhon Rachasima, Khon Kaen, Chaiyaphum, Maha Sarakam, Yasothon and ended at Ubon Ratchathani. The distance was about 800 kms.

To identify the methamphetamine distributing places, the ONCB considered the following 2 major criteria:

- Methamphetamine tablets acquired through purchase on the survey date.
- Information from key informants and competent authorities who could buy methamphetamine tablets within 30 days before the survey was conducted.

Figure 1



1.1 Results Of Study Survey

Table 1: The Number Of Methamphetamine Distributors On Phet Kasem Road And Mittraphab Road

Source of Distributors	Total picture of the survey		Phet Kasem Road		Mitraphab Road	
	No. of Distributors	%	No. of Distributors	%	No. Of Distributors	%
Gas station	188	46.5	85	42.0	103	51.0
Inside gas station	52	12.9	28	13.9	24	11.9
Outside gas station	164	40.6	89	44.1	75	37.1
Total	404	100.0	202	100.0	202	100.0

Table 1 shows the areas where methamphetamine were sold; at the gas station (46.5%), outside the gas station (40.6%) and inside the gas station (12.9%) (**Figure 2**). Comparing the survey routes between Mittraphab and Phet Kasem Road, it was found that on the Mittraphab Road, methamphetamine was mostly sold at gas stations, while along the Phet Kasem Road methamphetamine was sold mostly at shops located both inside and outside the gas stations.

Figure 2

LAYOUT OF A GAS STATION

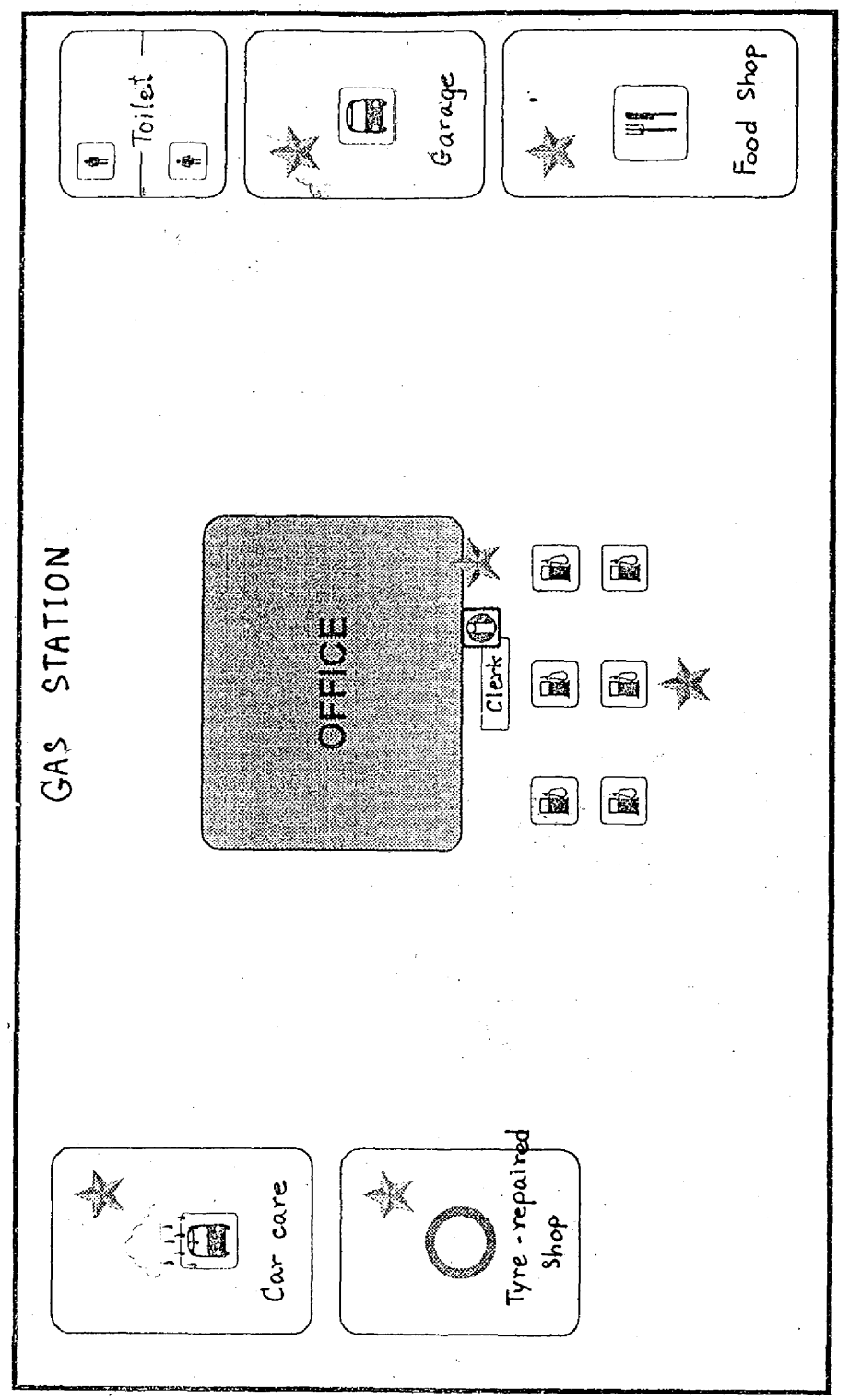


Table 2: The Number Of Gas Stations Selling Methamphetamine On Phet Kasem Road And Mittraphab Road

Size of gas station	Total picture of the survey			Phet Kasem Road			Mittraphab Road		
	Total No. of gas stations	No. of stations selling methamphetamine	%	Total No. of gas stations	No. of stations selling methamphetamine	%	Total No. of gas stations	No. of stations selling methamphetamine	%
Large	49	14	28.6	26	11	42.3	23	3	13.0
Medium	252	95	37.7	117	46	39.3	135	49	36.0
Small	104	32	30.8	40	13	32.5	64	19	29.7
Others	130	47	36.2	40	15	37.5	90	32	35.5
Total	535	188	35.1	223	85	38.1	312	103	33.0

From the survey of ONCB covering gas stations along Phet Kasem Road and Mittraphab Road, it was found that there were 188 gas stations selling methamphetamine or 35% of all size gas stations, large, medium, small and others (**Table 2**). The medium-sized gas stations featured as the main distributors. Comparing the survey routes between Phet Kasem Road and Mittraphab Road it was found that a higher percentage of gas stations were selling methamphetamine along the Phet Kasem Road i.e. at least 38% of all gas stations located on this road and most of them were large-sized gas stations. There were also gas stations on the Mittraphab Road selling methamphetamine; this comprised 33% of all gas stations and most of them were medium, small and movable gas stations.

Table 3: Source Of Distribution Within Gas Station Along Phet Kasem And Mittraphab Road

Place	Total picture of the survey		Phet Kasem Road		Mittraphab Road	
	Number	%	Number	%	Number	%
Food Shops	30	57.7	13	46.5	17	70.8
Beverage Shops	5	9.6	4	14.3	1	4.2
Tyre-repair Shops	12	23.1	7	2.5	5	20.8
Garage Shops	2	3.8	2	7.1	-	-
Car Care Shops	3	5.8	2	7.1	1	4.2
Flower Shops	-	-	-	-	-	-
Others	-	-	-	-	-	-
Total	52	100.0	28	100.0	24	100.0

Considering types of places within gas stations where methamphetamine were sold, it was found that food shops were the most popular (57.3%), followed by tyre repair shops (23.1%), and beverage shops (9.6%). (**Table 3**) Methamphetamine distribution along the 2 main highways showed an interesting difference:

- on Mittraphab Road methamphetamine were often sold in food shops but
- on Phet Kasem Road, they were mostly distributed in tyre-repair shops and beverage shops.

Table 4: Source Of Distribution Within Gas Station Along Phet Kasem And Mittraphab Road

Place	Total picture of the survey		Phet Kasem Road		Mittraphab Road	
	Number	%	Number	%	Number	%
Food Shops	70	42.7	34	38.2	36	48.0
Beverage Shops	34	20.7	10	11.2	24	32.0
Tyre-repair Shops	12	7.3	9	10.0	3	4.0
Garage Shops	3	1.8	3	3.3	-	-
Car Care Shops	3	1.8	1	1.1	2	2.7
Flower Shops	31	18.9	25	28.0	6	8.0
Others	11	6.8	7	8.2	4	5.3
Total	164	100.0	89	100.0	75	100.0

Table 4 shows that food shops were the most popular sources outside gas stations where methamphetamine were sold (42.7%) followed by beverage shops and flower shops (20.7% and 18.9% respectively). On Phet Kasem Road, methamphetamine were mostly sold in food shops and flower shops. Along the Mittraprab Road they were mainly sold in food shops and beverage shops.

1.2 Price and Chemical Analysis

Table 5: Price And Ingredients Of Methamphetamine Samples Collected From Phet Kasem Road

Number	Price (S / Tablet)	Methamphetamine (mg / Tablet)	Ephedrine (mg. / Tablet)	Caffeine (mg. / Tablet)
1	3.2	-	30.2	10.6
2	3.2	-	28.3	10.1
3	2	13.7	-	4.9
4	2	14.8	-	7.2
5	2	6.4	6.4	4.9
6	2	-	23.9	4.2
7	2	12.6	-	5.6
8	2	18	-	4.3
9	2	15	-	4.5
10	2	11.4	-	4.5
11	2	13.3	-	5
12	2	-	-	4.9
13	2	8.8	-	5.7
14	2	20	-	5.7
15	2	-	5.6	4.2
16	2	13.6	-	5.3
17	2	17.1	-	6
18	2	[illegible]	6.4	4
19	2	14.9	-	10.3
20	2	17.9	-	7
21	2	0.9	-	7.7
22	2	14.5	-	6.6
23	1.6	-	28.4	8.5
24	4	-	6.5	8.1
25	4	22.9	-	6.4
26	4	19.3	-	6.7
27	2.8	17.9	-	7.4
[illegible]	2.8	[illegible]	10.2	6.7

Table 6: Price And Ingredients Of Methamphetamine Sample Collected From Mittraphab Road

Number	Price (S / Tablet)	Methamphetamine (mg / Tablet)	Ephedrine (mg. / Tablet)	Caffeine (mg. / Tablet)
1	2.4	15.9	-	8.7
2	2.4	23.4	-	9.1
3	2.8	35.8	-	9.8
4	2.4	9.5	8.2	13.4
5	2.4	7.4	7.4	13.5
6	3.2	21.7	-	10.1
7	3.2	26.5	-	10.3
8	3.2	15.2	-	9.8
9	3.2	26.6	-	8.6
10	3.2	22.7	-	9.8
11	3.2	27.5	-	12.4
12	3.2	25.9	-	12.8
13	3.2	20.9	-	9.9
14	4	21.7	-	9.4
15	4	18.9	-	9
16	4	21.8	-	8.6
17	6	25.4	-	9.5
18	6	19.3	-	9.2
19	4.8	[illegible]	-	[illegible]
20	4	18.1	-	8.8

Table 7: The Number Of Methamphetamine Samples Classified By Ingredients On Phet Kasem Road And Mittraphab Road

No.	Major Ingredients	Phet Kasem Road	Mittraphab Road
1.	Methamphetamine + Caffeine	[illegible]	18
2.	Methamphetamine + Ephedrine + Caffeine	2	2
3.	Ephedrine + Caffeine	7	-
4.	Caffeine	1	-
	Total	28	20

Table 8: Amount Of Methamphetamine Per Tablet As Shown In No. 1 Of Table 7 (Mixed Between Methamphetamine And Caffeine)

Amount of methamphetamine (mg. / Tablet)	Phet Kasem Road	Mittraphab Road
< 5.0	1	-
5.1 - 10.0	1	-
10.1 - 15.0	9	-
15.1 - 20.0	6	5
20.1 - 25.0	1	8
> 25.1	-	5
Average (mg. / Tablet)	14.81	22.53

Tables 5 and 6 show rather different prices in different place and the price is not related to the quality of each methamphetamine tablet. Comparing the prices collected from the 2 routes, it was found that methamphetamine price on the Mitrraphab Road was more expensive than on the Phet Kasem Road.

Considering chemical analysis, each methamphetamine tablet contained various proportions of methamphetamine, ephedrine and caffeine. The chemical formula used in methamphetamine production (**Table 7**) could be classified into 4 groups as follows:

- Methamphetamine + Caffeine
- Methamphetamine + Ephedrine + Caffeine
- Ephedrine + Caffeine
- Caffeine

Samples collected from the 2 different routes, were mostly found to be stimulant drugs mixed with methamphetamine and caffeine. However, methamphetamine contained in each tablet obtained from the Mittraphab Road was higher, an average of about 22.5 grams per tablet. The sample gathered from the Phet Kasem Road contained 14.8 gram per table (**Table 8**).

From the analysis of methamphetamine sample tablets it could be assumed that:

- Methamphetamine tablets were produced at several sources. They were likely to be more than 30 manufacturing refineries.

- The effect of methamphetamine products from different places were not equivalent. Its effect depends on the amount of amphetamine.

2. CONCLUSION

2.1 Supply Situation Of Methamphetamine

The results of the survey study revealed that there were several methamphetamine distributors along the survey routes. Methamphetamine trade could be classified into two types. Firstly, it was illegally sold in places for short-stopping of drivers, or the cross-junctions between the cities. Secondly, it was sold in the production areas. This showed the close relationship of production, trade, and consumption which could be the reasons for the current widespread increase in trade and consumption of methamphetamine.

Methamphetamine distributors increased rapidly and their development was more complicated. At least 35% of the total gas stations on the survey route were involved in methamphetamine trade, mostly the medium-size gas stations and others (movable gas stations).

In the areas that the epidemic of methamphetamine was very serious, gas stations of all sizes sold methamphetamine. Sellers were gas station owners, clerks and employees. Some owners were both wholesalers and retailers. In cases where the retailer was not the gas station owner, we assumed that his owner supported the trade.

Key informants maintained that selling methamphetamine was the strategy of gas station owners for attracting customers. Moreover, some food shops, mechanic-repair shops, and flower shops both inside and around gas stations also sold methamphetamine thus suggesting that they worked together and were helping each other in methamphetamine trafficking.

Due to the lack of continuos suppression from law enforcement officers, selling and buying methamphetamine has been done openly. The number of methamphetamine distributors outside gas stations were not less than 40% of the whole methamphetamine distributors. In central areas of the survey routes, it was found that most of methamphetamine distributors was located inside the gas stations. Trade was done without any fear of law enforcement. Consumers, buying methamphetamine from these distributors, came from different classes and society. Some distributors could provide methamphetamine much more than the wholesalers. The mobile distributors such as a travel-flower seller, motorcycle drivers, were generally found along the survey routes.

More than 40 samples of methamphetamine were bought for chemical taste. There were 10 colors. The percentage of methamphetamine in each tablet of stimulant that we got from the Northeastern provinces especially on Mittraphab Road was higher than those from the southern provinces.

Methamphetamine price has increased highly since the past. Its prices does not depend on the quantity of methamphetamine in each tablet, but rather on the suppression of law enforcement officers of the time. Nevertheless traffickers always made more money from methamphetamine trafficking.

2.2 Demand Situation Of Methamphetamine

Compared to problems relating to other drug consumers, methamphetamine consumers are much more widespread and complicated. Most of them are drivers in the transportation services, such as truck drivers and bus drivers. Normally, they use it for driving, particularly when they feel sleepy. The amount of drug consumption for each user varies: some take a quarter of a tablet, while others take one pill each time. Its effect lasts up to 5 hours and depends on the quality of the drug. Middle-age consumers take methamphetamine by eating, while the young enjoy smoking it. They believe that methamphetamine is highly effected by smoking and that they will not be detected through urine testing. These are the reasons for methamphetamine users to change to smoking.

The thought that methamphetamine is very useful to their work, and that its effects are not bad for their health if used appropriately, has turned most of the drivers to become addicts. The amount of using methamphetamine each time increases and this will finally affect not only their health but also the economy and society.

THE DEVELOPMENT OF PRODUCTION AND SUPPLY SYSTEM OF METHAMPHETAMINE IN THAILAND

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ABSTRACT

The problem of methamphetamine in Thailand is increasing sharply and, absolutely, and also has negative effects on national security. The availability of accurate information and a correct and good assessment of the supply and demand system of methamphetamine plays an important role in setting up the national methamphetamine control strategy. This study aims to find out such information. The samples of methamphetamine tablets were collected accidentally from a total of 256 areas in 50 provinces throughout the country by 75 drug law enforcement teams. A total of 516 tablets were collected mainly by using flash roll method and from the arrests of methamphetamine cases.

This study reviewed the development of methamphetamine production in Thailand. At the very beginning manufacturers used amphetamine sulfate and amphetamine hydrochloride mixed in methamphetamine products. Later, they turned to use ephedrine, caffeine, etc., instead because of the severe suppression on the first mentioned chemicals. It was clear that presently ephedrine was mostly used as precursor to produce methamphetamine.

To study the supply system, it is vital to state that the problems of methamphetamine is widespread and serious in the country. There was 6 - 7 types of distributing places such as distributor's home, grocery, gas station, tyre-repair shops, etc. User groups were students, workers, bus and truck drivers, farmers, etc.. There were not only differences in prices at retail and wholesale level, but differences in packaging as well. The popular way of packaging was stuffing in straw, and wrapping with foil. Most of the methamphetamine distributing places sold only methamphetamine tablets.

The results from analyzing the physical characteristics and chemical mix discovered that methamphetamine samples had many colors (28), and many brand names (18). Regarding the size of the tablet, most of them was 6.25 - 6.64 millimeters in diameter, 2.55 - 2.94 millimeters in thickness, and 90.0 - 99.9 milligrams in weight. From the examination of 273 samples tablets, it was found that methamphetamine was the main chemical used. The quantity of methamphetamine was 20.1 - 25.0 milligrams on average, while caffeine was about 50.1 - 55.0 milligrams. Ephedrine was rarely found in methamphetamine products, and only one tablet was found to have amphetamines chemical content.

Therefore, it could be said that methamphetamine tablets from any part of Thailand were different both in physical characteristics and chemical combination which depended on supply characteristics and chemical combination which in turn depended on the supply system and the manufacturing network. Particularly the minority groups along Thai-Myanmar border would be a powerful group in playing a key role in producing and distributing methamphetamine in the future.

SCOPE OF THE STUDY

1. BACKGROUND

The spread of methamphetamine problem in Thailand occurred very widely during the past decade according to the statistics of methamphetamine seizures in Thailand. In 1985, methamphetamine seizures were made in only 28 provinces however, 10 years later, the seizure increased in every province (75 provinces) throughout the country. In 1985, only two provinces were considered to have serious methamphetamine situation but now the situation has expanded to cover 20 provinces and the extent of the problem tends to increase more widely.

The proportion of methamphetamine abusers in Thailand comprises people from different occupations. The major ones are truck drivers, public transportation operators, agricultural workers, workplace workers, entertainment workers including in-school youths, etc. Therefore, methamphetamine is considered the illicit drug used by the proportion whose causes of abuse are different such as for longer working hours, for enjoyment, etc. There are thousands of methamphetamine abusers in Thailand and the number of abusers is increasing daily.

In Thailand, the expansion of methamphetamine production is a main factor which causes the increase in such a problem. In the past, clandestine methamphetamine laboratories were found only in Bangkok and nearby province areas; later, they were also found in various provinces of every region of the country. The production which were monopolized by a few groups has widely been run especially since 1995, by the minority groups along Thai-Myanmar borders such as Khun Sa group and Wa group who have developed the methamphetamine production and subsequently have become the major producing groups who importantly caused the spread of methamphetamine in Thailand.

The characteristics of widespread methamphetamine production in Thailand may be different from those of other countries because most recent producers do not have enough scientific or chemical knowledge except experience. This very much results in the different forms and ingredients of methamphetamine produced each time although they are made in the same laboratories. This also indicates that production is not standardized.

The different ingredients of each methamphetamine tablet resulting from the production as mentioned above are the main factors which affects abusers' health and body at different levels. During recent years, the number of abusers applying for treatment has tended to increase. This may be caused by both the ingredient and the change of consumption types; therefore, the close monitoring of such situation is essential, especially, the one which may affect abusers.

2. STUDY OBJECTIVE

- To do a preliminary study on the physical appearance and chemical components of methamphetamine in Thailand.
- To study demand and supply systems of methamphetamine epidemic problem.
- To study and collect basic information essential for the development of information systems concerning these matters.

3. METHODOLOGY

- The collection of methamphetamine samples for analyzing both their physical appearance and chemical components, has been done by narcotics law enforcement units of provincial, border patrol and marine police by 2 methods as follows:
  - Buy and bust method. This will be done by assigned informers in the area who are informed that methamphetamine dealings occur.
  - Methamphetamine seizures. The samples are collected from the seizures run by the mentioned units.
- Inquiry of informants based on the designed questionnaire. The individual law enforcement officers handling informants ask them who buys methamphetamine and the dealing source enforcement officers who operate the seizure have to record the information obtained in the form as well.
- To study from existing documents and information. (**Appendix 1**).

4. PERIOD AND PROCEDURES

- May - June 1996

Set up the guidelines on information collection, questionnaire design and the cooperation with other law enforcement units.

- July - September, 1996

The law enforcement units collect methamphetamine samples.

- September - October, 1996

The analysis of both physical appearance and chemical component of the samples was carried out and the required information was processed.

- November, 1996

Prepared the findings of the study report.

5. THE DEVELOPMENT OF METHAMPHETAMINE IN THAILAND

Most narcotic drugs in the world are initially used for medical purpose and are legal drugs. Later, people have abused them until they became addicted. Therefore, these drugs have been declared as illegal drugs including methamphetamine.

The Development Of Methamphetamine Production

In Thailand, methamphetamine has been abused for more than 30 years. According to the study on the development of methamphetamine production in Thailand, it can be divided into 3 phases:

PHASE 1: THE IMPORTATION OF AMPHETAMINE FROM ABROAD SINCE 1955

It was believed that amphetamine was smuggled into Thailand from abroad before 1995 which was the first time that narcotics (amphetamine-type stimulants) control law had been promulgated in Thailand. During the period, no amphetamine production occurred in Thailand except the importation. According to the analysis of amphetamine seized in Thailand during 1961 - 1970, it was found that all substances contained in amphetamine were amphetamine sulfated-type substances but since 1971, the contained substances have been changed from amphetamine sulfate to methamphetamine hydrochloride because the amphetamine importation had become difficult. In 1971, there was amphetamine seizures which were mainly methamphetamine hydrochloride. During 1974 - 1978, the quantity of seized amphetamine which was methamphetamine hydrochloride rapidly increased especially in 1978, 93.9% seized amphetamine was methamphetamine hydrochloride.

PHASE I1: THE PRODUCTION OF FALSE AMPHETAMINE SINCE 1980

The increase in demand of amphetamine among Thai people has also resulted in the expansion of the amphetamine market. During 1979 - 1980, Thai enforcement agencies seized methamphetamine hydrochloride in large quantities. As a result, the shortage of raw materials for amphetamine production occurred. The amphetamine production in Thailand became more sophisticated and different. Some producers used other substances in their production in terms of both adulteration and imitation and clandestine laboratories were initially located in Thailand. During 1980 - 1981, according to analysis of seized amphetamine, 2 major kinds of amphetamines were found. The first one was the same kind of amphetamine which was like the others but its ingredients were absolutely different. Significantly, ephedrine, caffeine and other substances were widely used as ingredients for false amphetamine production. During 1981 - 1984, ephedrine and caffeine became the major ingredients for the production of false amphetamine (**Appendix 2**).

PHASE III: THE USE OF EPHEDRINE AS A PRECURSOR FOR AMPHETAMINE PRODUCTION SINCE 1987

Amphetamine producing groups have developed the process of production by using ephedrine as a precursor for methamphetamine production before mixing it with other adulterants until it becomes false amphetamine. It is believed that Hong Kong or Taiwanese chemists are the first producing groups who succeeded in using ephedrine as a precursor of pure methamphetamine production. During the period, pure methamphetamine was imported from abroad for some producing groups in Thailand and the groups would adulterate it and make it into tablet form before distribution.

In recent years, the process of methamphetamine production in Thailand has changed by a definite separation in the process of production among the producing groups, for example, the initial groups use ephedrine for pure methamphetamine production only and then they sell their product to other groups to adulterate it with other substances and make into tablet form before reselling to the dealing groups. In Thailand, the pure methamphetamine producing groups are found only in Bangkok and nearby province areas. The tablet making groups, who do not need many production techniques, have more clandestine laboratories which are scattered throughout the country (**Appendix 3**).

Since 1987, the characteristics of methamphetamine production classified by ingredients falls into 4 main categories:

- Methamphetamine + caffeine
- Methamphetamine + ephedrine
- Methamphetamine + ephedrine - caffeine
- Ephedrine + caffeine

Noticeably, amphetamine is not found lately. According to the analysis of methamphetamine during 1987 - 1995, pure methamphetamine produced from ephedrine is now the main substance for methamphetamine production.

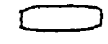
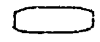
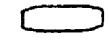
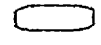
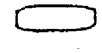
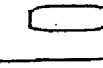
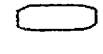
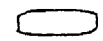
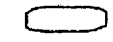
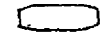
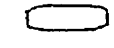
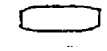
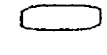
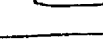
Brand Based On Methamphetamine Tablet

Unlike medical drug manufacturing, the uncertain factors involving methamphetamine production such as producer group, chemical recipe, producing method, skill of chemist etc., cause different standards in methamphetamine products. The brands based on amphetamines tablet was various and has changed from time to time. The reason is when a group produced a good quality of methamphetamine tablet which is most popular among users, the other groups then imitate the brand with low quality to supply users' demand and made economic gains. When drug users found out of its bad quality and declined to use it, methamphetamine producers would turn to use new brands to attract users again.

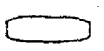
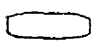
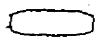
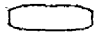
The first appearance of amphetamine in Thailand is flat-rounded tablet bearing chest-horse brand on one side and "LONDON" on the other. The tablet had been very popular for about 8 years (1981 - 1988) and, later, faded out from the market while the appearance of various other brands emerged rapidly.

The brands of amphetamine found in Thailand since the beginning of the problem until 1995 is reportedly about 28. Some faded out of the market in Thailand, while some were still in use as shown in the following pictures.

Brands of Methamphetamine Tablet in Thailand , 1978 - 1987

Front	view	side	Back view	Front	view	side	Back view
1.				10.			
2.				11.			
3.				12.			
4.				13.			
5.				14.			
6.				15.			
7.				16.			
8.				17.			
9.				18.			

Brands of Methamphetamine Tablet in Thailand , 1987 - 1991

FRONT VIEW	SIDE VIEW	BACK VIEW	สีที่พบ ลักษณะของตัวยา
K		44	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
K		99	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
M		☆	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
m		99	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
M		99	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
Sp		99	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
M		K	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
		99	น้ำตาล ส้ม เทาเหลือง Methamphetamine HCL
		△	สีฟ้า Methamphetamine HCL
			สีเหลือง Methamphetamine HCL

6. OUTCOMES

The following are the outcomes of the analysis of data collected from questionnaires filled out by law enforcement officials who brought the sample methamphetamine for this study and to interview key informants.

6.1. The Outcome Of The Analysis Of Data Collected From Questionnaires

Number Of Tablets And Distributing Places

516 methamphetamine tablets were collected from 50 provinces (Bangkok inclusive) in all regions of Thailand. About half of the sampling tablets were collected from every province in the Central while the rest are from the North, South and Northeast respectively (some places could provide more than 1 type of tablet, **Appendix 4**).

Methods Used In Collecting Tablets

Flash roll was mainly used by undercover agents in collecting tablets which brought 75% of the samples while the rest are from case arrests. The reasons for using flash roll method is to obtain complete data from the questionnaires (**Appendix 5**).

Distributing Point

The study reported 6 - 7 categories of distributing places i.e. distributor's home, grocery, gas station, tyre-repair shop, distributing agent, taxi-motorcyclist, and others. The most common distributing point, from where tablets in this study were mostly collected by flash roll method, was distributor's homes, both in urban and rural areas, followed by grocery and distributing agent, gas station, tyre-repair shops and taxi-motorcyclist respectively (**Appendix 6**).

Price

The retail and wholesale price of methamphetamine tablets varied from place to place. The retail price was about 30 - 180 baht/tablet and the most common prices in the study were 100, 120, 80 baht/tablet. The wholesale price was about 1,000 - 16,000 baht/bag (200 tablets) and the most common prices in this study were for the 8,000, 9,000, 12,000 baht/bag (**Appendix 7**).

The average retail price of methamphetamine tablet in all regions was not much different ranging from 91 - 100 baht/tablet while the average wholesale price had a wide range from 7,000 to 12,000 baht/bag. The highest retail price was sold in the

Northeast while the lowest was in the North. The highest wholesale price was sold in the South while the lowest was in the North (**Appendix 8**).

Taking a look at the different price/tablet between retail and wholesale, we found that the profit is double. The highest average profit in amphetamine business was in the North while the rest are in Northeast, Central, and South respectively (**Appendix 9**).

Packaging

5 categories of packaging pattern for methamphetamine found in this study were, stuffing in straw, wrapping with aluminum foil or lead foil, wrapping with plain paper, packing in plastic bag, and naked tablet. The most common package was stuffing in straw with 1 - 2 tablet(s) followed by packing in plastic bag and wrapping with aluminum foil or lead foil.

Regarding packaging of methamphetamine by region, wrapping with aluminum foil or lead foil was most popular in the North and Northeast while stuffing in straw with 1 - 2 tablets(s) was most common in the Central and the South (**Appendix 10**).

The correlation between packaging and distributing place showed distributors' home mostly distributed methamphetamine in packaging of stuffing in straw and wrapping with aluminum foil and secondly packing in plastic bag. Grocery shops mostly distributed methamphetamine in packaging of wrapping with aluminium foil while gas stations did the sale in three patterns of packing i.e. stuffing in straw, wrapping with aluminium foil, and packing in plastic bag (**Appendix 11**).

Methamphetamine User Group

The known 9 categories of methamphetamine user group i.e. distributor, student, driver, employee, worker, villager, farmer, fisherman and the unemployed were found all over the country.

Among the 9 categories, the student group had the most variety of epidemic problems, followed by worker and driver respectively. Regionally students still were the most serious group in every region except the South where driver was most serious group (**Appendix 12**).

Popular distributing places among each methamphetamine user group were found; distributor's home, grocery and distributing agent were respectively popular places among students who came for methamphetamine supply. Gas stations were mainly targeted by drivers, while workers bought methamphetamine from distributor's home, grocery, and distributing agent around their living place (**Appendix 13**).

Methamphetamine Sources Of Origin

The study found that the North was a remarkable methamphetamine source of origin, spreading the products of methamphetamine over the North itself and the Central. The Northeast was the second significant source of origin and sent methamphetamine tablets to supply the Central (**Appendix 14**).

Characteristics Of Methamphetamine Trade

90% of the distributors sold methamphetamine solely while the rest of 10% sold methamphetamine and other types of drugs (**Appendix 15**). The distributor's home usually sold methamphetamine and other types of drugs (**Appendix 16**).

6.2. The Result Of Examining The Methamphetamine Samples

The results of examining methamphetamine samples on physical characteristic and chemical combination were reported as follows;

Colors

28 colors were found from examining methamphetamine samples. The first 5 favorite colors were orange, brown, dark brown, purple, and reddish brown respectively (**Appendix 17**).

Brand Names

The favorite brand names, out of 18 found in this study, were respectively; "99" and "m" bared on each side of tablet, "99" and "_" bared on each side of tablet, and diagonal line (/) bared on both sides. 60% of "99" and "m" brand spreading throughout the country were in the Central. Even though there were 13 new brand names found in this study, the old brand name i.e. "99" and "m" brand was the most popular (**Appendix 18**).

Size In Diameter Length

Most samples had size of 6.25 - 6.64 millimeters in diameter, followed by the 6.65 - 7.04 and 5.58 - 6.24 respectively (**Appendix 19**).

Size In Thickness

The study discovered that most of the 273 samples was 2.55 - 2.94 millimeters in thickness, followed by 2.15 - 2.54 (**Appendix 20**).

Weight

Most of the samples weighed 90.0 - 99.9 milligrams, followed by 80.0 - 89.9, and 70.0 - 79.9 milligrams respectively (**Appendix 21**).

Amphetamine Chemical Content

Even though amphetamine had not been used as precursor for methamphetamine production in Thailand for many years, this study discovered a case from Lampoon province which is in the North having amphetamine content in the tablet (**Appendix 22**).

Methamphetamine Chemical Content

The quantity of methamphetamine content in a tablet tended to be increasing. Most of the samples had methamphetamine chemical content of 20.1 - 25.0 milligrams, followed by 15.1 - 20.0, 10.1 - 15.0 respectively. The tablets with 20.1 - 25.0 milligrams of methamphetamine chemical content was mostly found in the Central and the North while tablets without methamphetamine chemical content also spread more rapidly in those areas than other regions (**Appendix 23**).

Ephedrine Chemical Content

81% of the samples were found having no ephedrine mixed while the rest had a range that can be categorized into 10. The ephedrine content was mostly 0.1 - 5.0 milligrams, followed by 10.1 - 15.0. The samples with ephedrine content was mostly found in the Central and the North rather than other regions (**Appendix 24**).

Caffeine Chemical Content

A wide range of caffeine content were found in the samples of which 90% had the caffeine content. The caffeine content was mostly 50.1 - 55.0 milligrams, followed by 55.1 - 60.0 and 45.1 - 50.0 respectively. The samples from the North had the most wide range of caffeine content (**Appendix 25**).

6.3. Characteristics Of Methamphetamine Tablets And Its Spreading In The Provinces

Characteristics Of Methamphetamine Spread In Each Province

The characteristics of methamphetamine tablet which were spreading in the provinces were rather the same. Looking into Lampang province to study the characteristics of methamphetamine tablets in terms of physical and chemical appearance which we could generalize to other provinces, the study of 25 samples from 10 districts found 12 different colors, 9 brand names on the tablets, many different size in diameter, thickness, and weight, and wide ranges of methamphetamine and caffeine content as 10 - 10 - 30.10 and 0.00 - 60.10 milligrams respectively (**Appendix 26**).

Characteristics Of Methamphetamine Spreading And Networks

The study of the spread of methamphetamine discovered, manufacturing suppliers and their networks as well as movements as shown below;

- The orange tablets with 99/- brand name collected from 12 provinces in the North, the Central, the South, and Bangkok were found having no significant differences in physical appearance and chemical content i.e. color, brand name, size in diameter, thickness and weight, methamphetamine and caffeine content. They might, therefore, have come from the same manufacturing supplier or related to the same supplier network (**Appendix 27**).

- The dark brown tablets with 99/m brand name collected from 15 provinces in the North, the Central and the South, were found having no significant differences in physical appearance i.e. size and weight, and chemical content which were mostly having 15.10 milligrams of methamphetamine (**Appendix 28**).

Characteristics Of Methamphetamine Tablets Produced By Minority Groups Along Thai-Myanmar Border

8 samples of methamphetamine collected by flash roll and the arrests of cases had the same brand name i.e. 99/m which had different colors i.e. orange, greenish-yellow, dark brown and yellow. The samples also weighed 80.0 - 100 milligrams which was heavier and had 20 milligrams of methamphetamine more than the methamphetamine produced in Thailand on average.

Appendix 1

Methamphetamines Sampling Test Sheet Form

Please mark X in [ ] the correct answer.

1. Ways to get methamphetamine

   [ ] Arrests for .....

   [ ] Buy and bust for sampling test for .....

2. Number of methamphetamine tablets sent for testing ..... tablets.

3. Area or Place to buy or arrest methamphetamines (give details on the location of house or shop as road, sub-district, district, province)

   .....

   .....

4. Methamphetamine Price

   4.1 Retail price ..... Baht/a tablet

   4.2 Wholesale price ..... Baht/bag (200 tablets)

   4.3 Wholesale price ..... Baht/10 bags (2,000 tablets)

5. Packing Pattern

   .....

6. Regular customers in the area .....

7. Sources of methamphetamine in the area

   .....

   .....

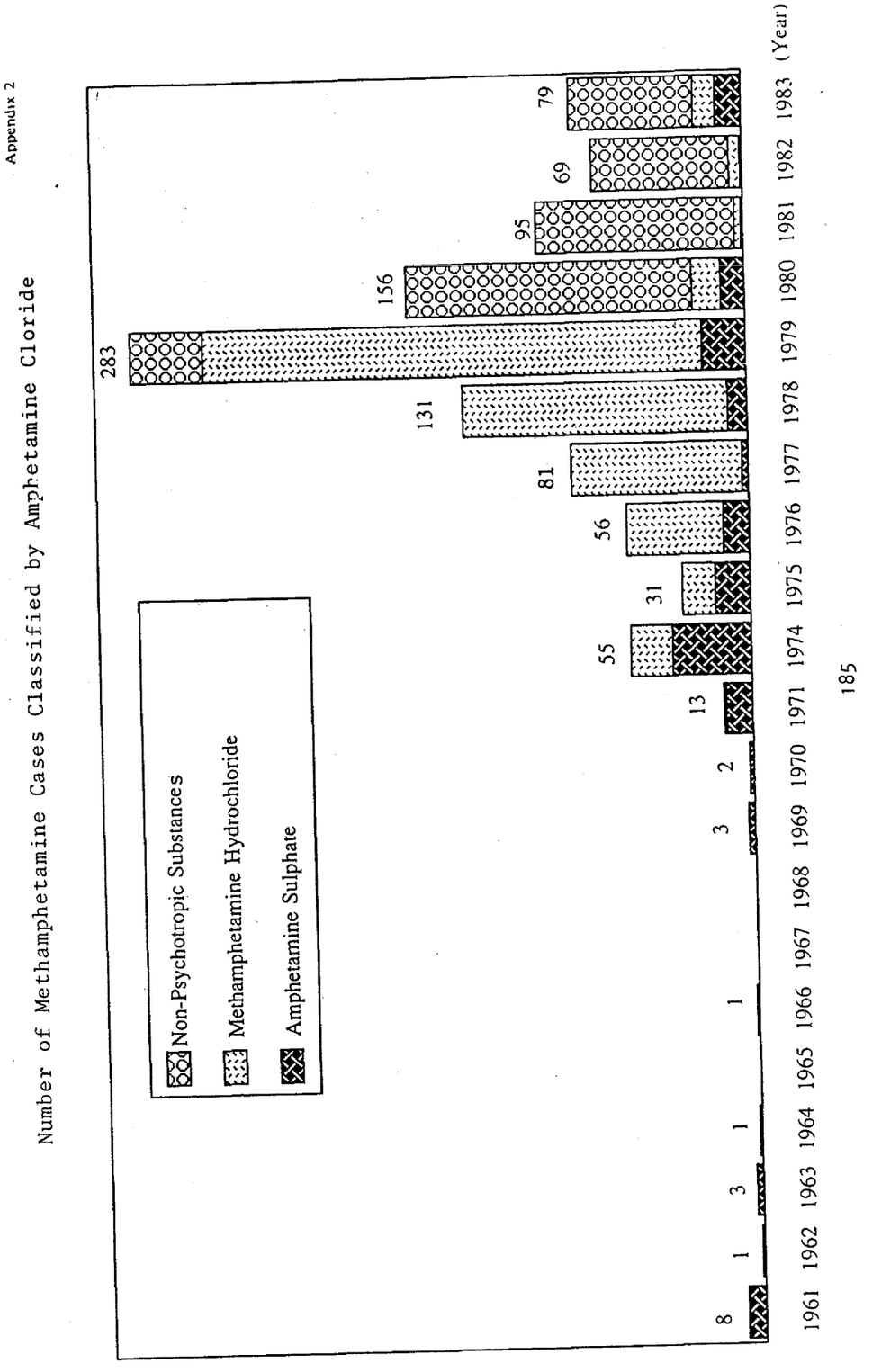
8. Any other drugs in the area

   [ ] yes specify .....

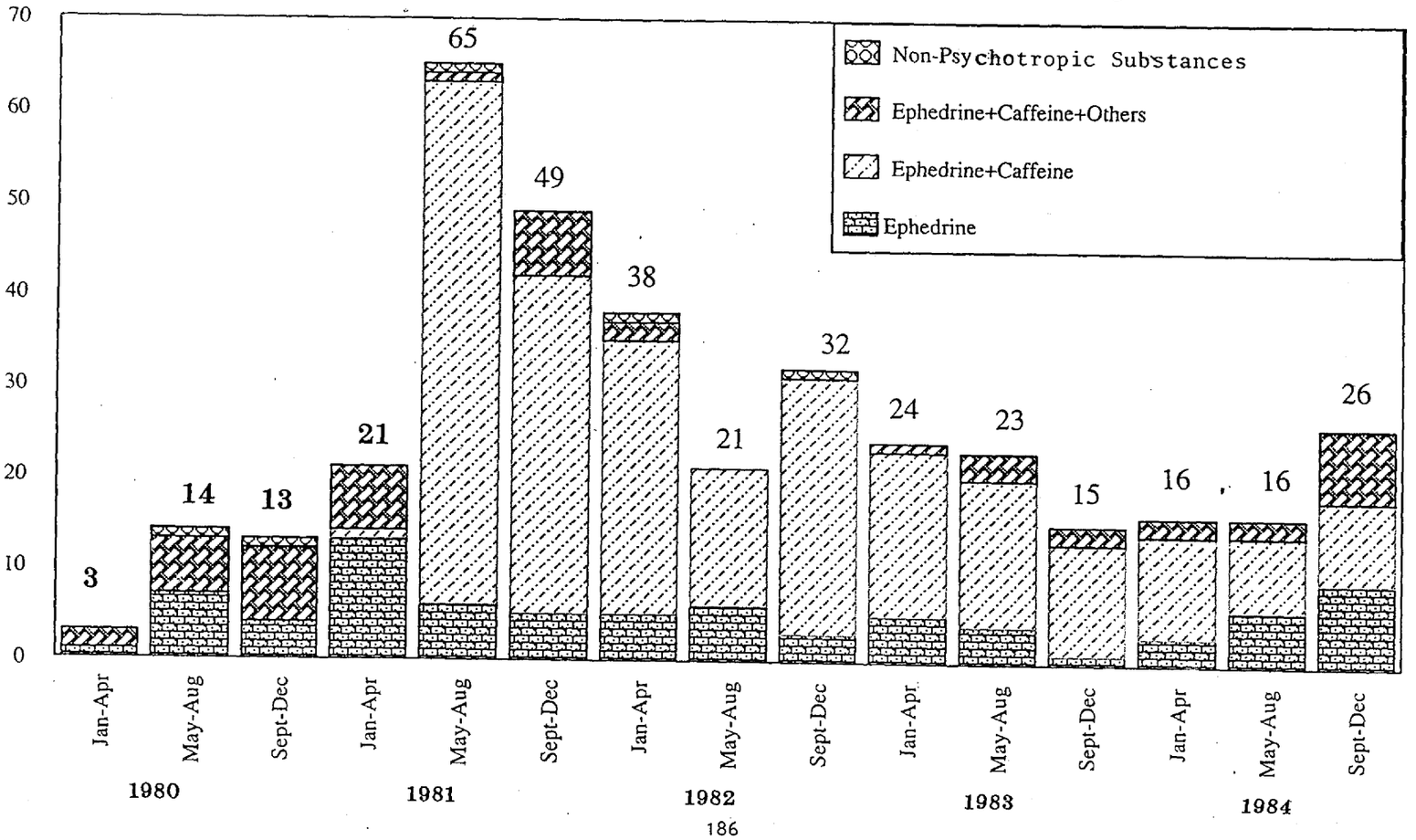
   [ ] none

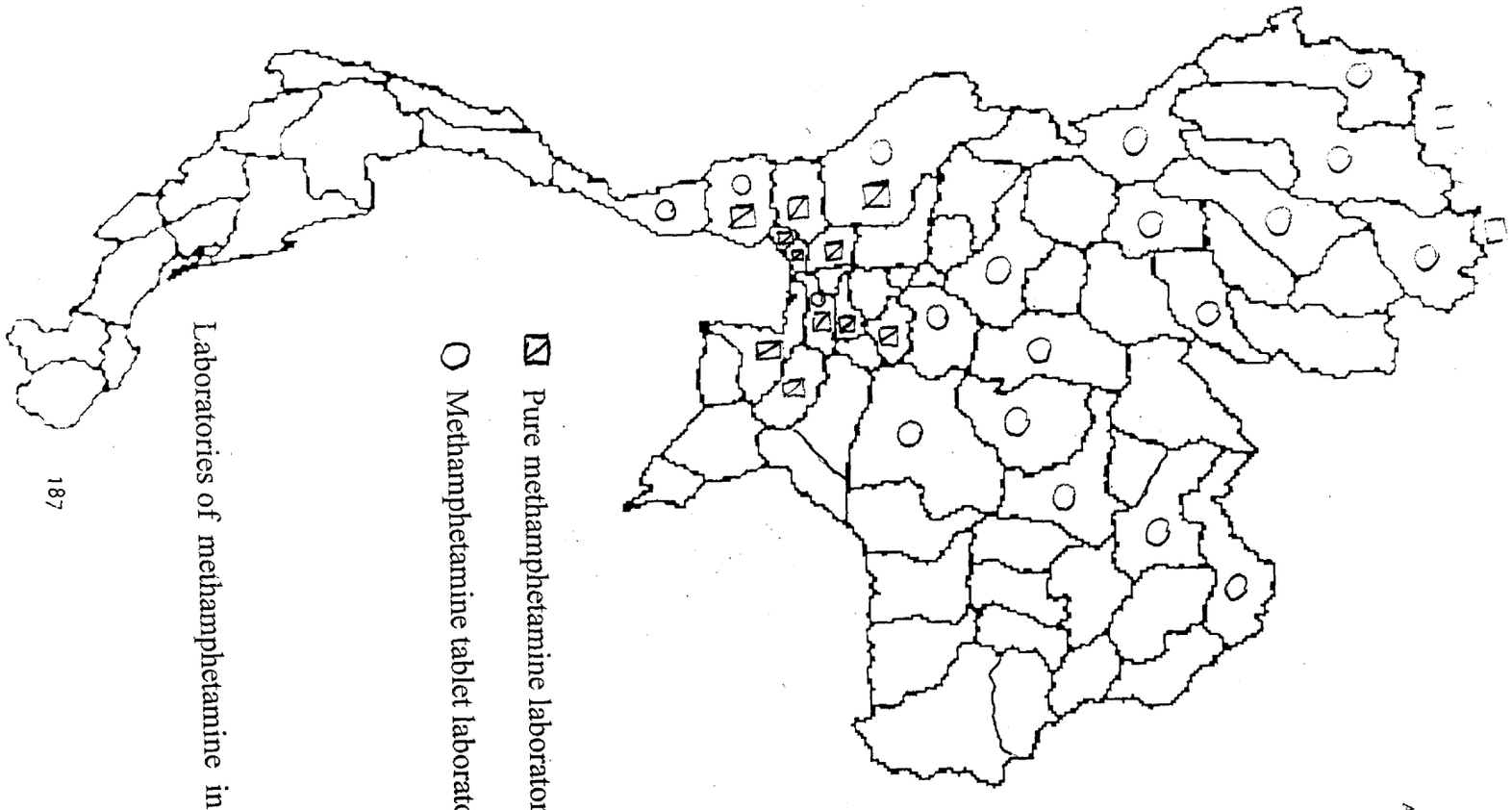
Note: 1 test form for 1 sampling drug test

Appendix 2



Number of Methamphetamine Impurity Cases Found by Chemical Testing 1980 - 1984





Laboratories of methamphetamine in Thailand

○ Methamphetamine tablet laboratories

▨ Pure methamphetamine laboratories

Number of methamphetamine distributing area

Region	No. of province	%	No. of area	%	No. of tablet	%
North	10	20.0	75	28.1	110	21.3
Northeast	8	16.0	34	12.7	61	11.8
South	7	14.0	29	10.9	75	14.5
Central	24	48.0	127	47.6	264	51.2
Bangkok	1	2.0	2	0.7	6	1.2
Total	50	100.0	267	100.0	516	100.0

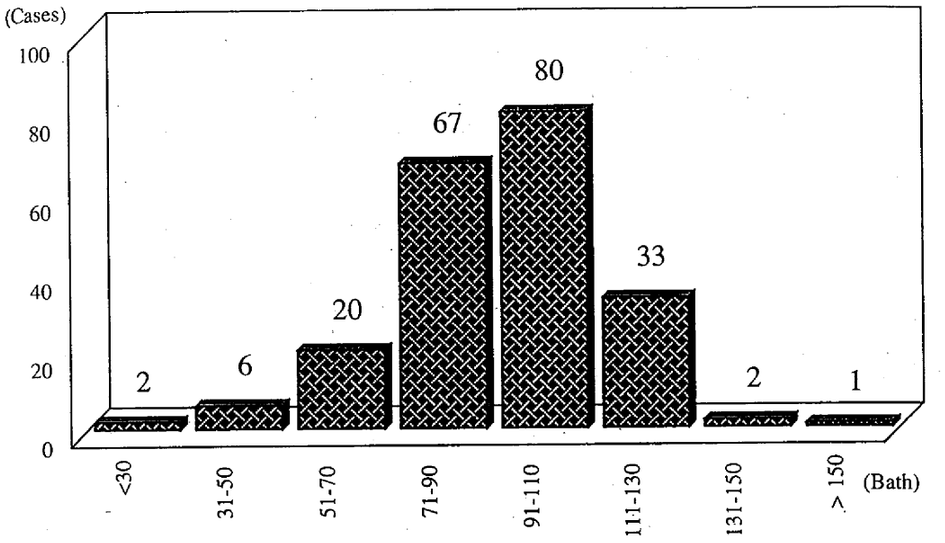
Methods used in collecting methamphetamine tablets

Region	Method		Total
	Undercover agent	Arrests	
North	38 (50.7) (20.9)	37 (49.3) (48.1)	75 (100)
Northeast	31 (91.2) (17.0)	3 (8.8) (3.9)	34 (100)
South	18 (75.0) (9.9)	6 (25.0) (7.8)	24 (100.0)
Central	95 (76.6) (52.2)	29 (23.4) (37.6)	124 (100)
Bangkok	-	2 (100) (2.6)	2 (100)
Total	182 (70.3) (100)	77 (29.7) (100)	259 (100)

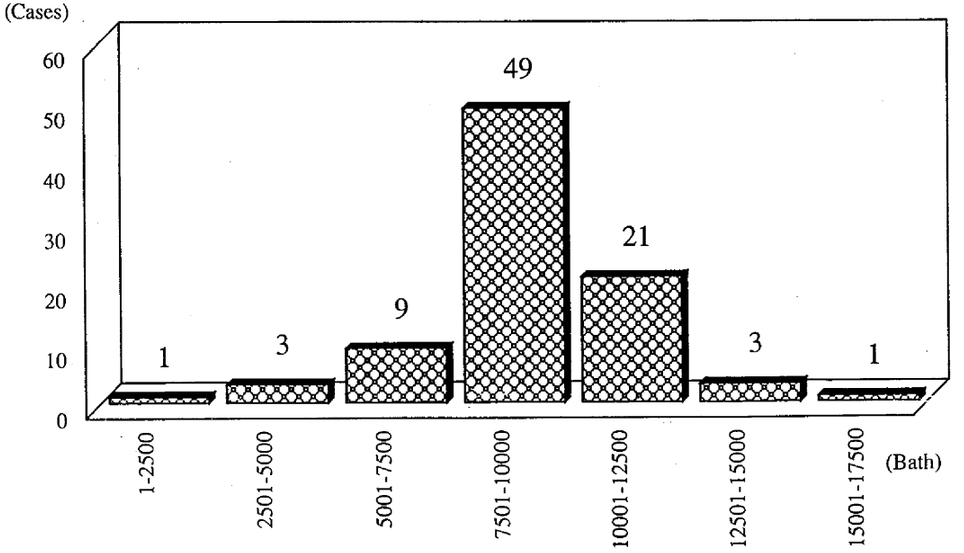
Number of distributing places both by undercover agents and arrests

Region	Distributing places							Total
	House	Grocery	Gas-station	Tyre-repaired	Distributing agent	Taxi-motorcychist	Others	
North	6	3	3	-	1	-	7	20
	(30.0)	(15.0)	(15.0)		(5.0)		(35.0)	(100.0)
	(11.7)	(13.0)	(16.7)		(4.3)		(22.6)	
Northeast	12	5	-	-	4	-	5	26
	(46.2)	(19.2)			(15.4)		(19.2)	(100.0)
	(23.6)	(21.8)			(17.4)		(16.1)	
South	2	2	7	2	4	-	3	20
	(10.0)	(10.0)	(35.0)	(10.0)	(20.0)		(15.0)	(100.0)
	(3.9)	(8.7)	(38.9)	(40.0)	(17.4)		(9.7)	
Central	31	13	8	3	13	4	16	88
	(35.2)	(14.8)	(9.1)	(3.4)	(14.8)	(4.6)	(18.2)	(100.0)
	(60.8)	(56.5)	(44.4)	(60.0)	(56.6)	(100.0)	(51.6)	
Bangkok	-	-	-	-	1	-	-	1
					(100.0)			(100.0)
					(4.5)			
Total	51	23	18	5	23	4	31	155
	(32.9)	(14.9)	(11.6)	(3.2)	(14.8)	(2.6)	(20.0)	(100.0)
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	

Retail Price of Methamphetamine per Tablet



Whole Sale Price of Methamphetamine per Bag(200 tablets)



Appendix 8

Price of metamphetamine tablet

Region	Average retail price (baht)	Average wholesale price (baht)	
	(tablet / baht)	tablet / baht	bag (200 tbls) /baht
North	90.18	38.2	7,649.95
Northeast	100.62	53.6	10,727.27
South	91.92	60	12,000.00
Central	94.21	47.8	9,568.63
Bangkok	-	38.8	7,750.00

			APPENDIX 9
	PROFIT OF METHAMPHETAMINE (per tablet)		
Region	Average wholesale price	Average retail price	Profit
North	38.2	90.18	51.98
North / E	53.6	100.62	47.02
South	60	91.92	31.92
Center	47.8	94.21	46.41
BKK	-	-	-

Packaging pattern of methamphetamine

Region	Packing pattern of methamphetamine							Total
	strawing 1-2 tbls	strawing 3-4 tbls	strawing 5 tbls	luminum foilor /lead foil	Wrapping with plain paper	Plastic bag	naked tablet	others	
North	21 (28.4) (25.0)	-	1 (1.4) (100.0)	29 (39.2) (48.3)	1 (1.4) (12.5)	22 (29.7) (36.1)	-	-	74 (100.0)
Northeast	4 (14.3) (4.8)	-	-	14 (50.0) (23.3)	2 (7.1) (25.0)	6 (21.4) (9.8)	1 (3.6) (33.3)	1 (3.6) (100.0)	28 (100.0)
South	16 (76.2) (19.0)	2 (9.5) (28.6)	-	-	1 (4.8) (12.5)	2 (9.5) (3.3)	-	-	21 (100.0)
Central	43 (42.6) (51.2)	5 (5.0) (71.4)	-	17 (16.8) (28.3)	4 (4.0) (50.0)	30 (29.7) (49.2)	2 (2.0) (66.7)	-	101 (100.0)
Bangkok	-	-	-	-	-	1 (100.0) (1.6)	-	-	1 (100.0)
Total	84 (37.3) (100.0)	7 (3.1) (100.0)	1 (0.4) (100.0)	60 (26.7) (100.0)	8 (3.6) (100.0)	61 (27.1) (100.0)	3 (1.3) (100.0)	1 (0.4) (100.0)	225 (100.0)

Appendix 11

Packaging pattern of methamphetamine by distributing place

Distributing place	Methamphetamine packing of pattern							Total
	Containing straw 1-2	Containing straw 3-4	Aluminium foil wrapping	Paper wrapping	Plastic bag	Naked	Others	
House	17 (34.7) (33.3)	1 (2.0) (16.7)	17 (34.7) (45.9)	2 (4.1) (28.6)	11 (22.4) (33.3)	1 (2.0) (100.0)	-	49 (100.0)
Grocery	4 (20.0) (7.8)	-	7 (35.0) (18.9)	2 (10.0) (28.6)	7 (35.0) (21.2)	-	-	20 (100.0)
Gas station	4 (33.3) (7.8)	1 (8.3) (16.7)	3 (25.0) (8.1)	1 (8.3) (14.3)	3 (25.0) (9.1)	-	-	12 (100.0)
Tyre-repair shop	1 (20.0) (2.0)	3 (60.0) (50.0)	-	-	1 (20.0) (3.0)	-	-	5 (100.0)
Distributing agent	11 (61.1) (21.6)		2 (11.1) (5.4)	-	4 (22.2) (12.1)	-	1 (5.6) (100.0)	18 (100.0)
Taxi-motorcyclist	3 (75.0) (5.9)		1 (25.0) (2.7)	-	-	-	-	4 (100.0)
Others	11 (39.3) (21.6)	1 (3.6) (16.7)	7 (25.0) (18.9)	2 (7.1) (28.6)	7 (25.0) (21.2)	-	-	28 (100.0)
Total	51 (37.5) (100.0)	6 (4.4) (100.0)	37 (27.2) (100.0)	7 (5.1) (100.0)	33 (24.3) (100.0)	1 (0.7) (100.0)	1 (0.7) (100.0)	136 (100.0)

Appendix 12

Methamphetamine user group

Region	Methamphetamine user group										Total
	Distributor	Student/ Youth	Driver	Employee	Worker	Villager	Farmer	Fisherman	Unemployed	Others	
North	22 (18.5) (68.8)	27 (22.7) (23.3)	11 (9.2) (18.6)	5 (4.2) (22.7)	17 (14.3) (20.7)	12 (10.1) (37.5)	12 (10.1) (50.0)	-	4 (3.4) (50.0)	9 (7.6) (36.0)	119 (100.0)
Northeast	5 (6.7) (15.6)	17 (22.7) (14.7)	12 (16.0) (20.3)	4 (5.3) (18.3)	10 (13.3) (12.2)	9 (12.0) (28.1)	4 (5.3) (16.6)	3 (4.0) (37.5)	3 (4.0) (37.5)	8 (10.7) (32.0)	75 (100.0)
South	-	4 (10.5) (3.4)	17 (44.7) (28.8)	3 (7.9) (13.6)	9 (23.7) (11.0)	-	1 (2.6) (4.2)	2 (5.3) (25.0)	-	2 (5.3) (8.0)	38 (100.0)
Central	5 (2.8) (15.6)	68 (38.6) (58.6)	19 (10.8) (32.3)	10 (5.7) (45.4)	46 (26.1) (56.1)	11 (6.3) (34.4)	7 (4.0) (29.2)	3 (1.7) (37.5)	1 (0.6) (12.5)	6 (3.4) (24.0)	176 (100.0)
Bangkok	-	-	-	-	-	-	-	-	-	-	-
Total	32 (7.8) (100.0)	116 (28.4) (100.0)	59 (14.5) (100.0)	22 (5.4) (100.0)	82 (20.1) (100.0)	32 (7.8) (100.0)	24 (5.9) (100.0)	8 (2.0) (100.0)	8 (2.0) (100.0)	25 (6.1) (100.0)	408 (100.0)

Methamphetamine user group by distributing place

Appendix 13

Distributing place	Methamphetamine user group										Total
	Distributor	Student/ youth	Driver	Employee	Worker	Villager	Farmer	Fisherman	Unemployee	Others	
House	3	36	12	7	19	12	6	4	4	9	112
	(2.7)	(32.1)	(10.7)	(6.3)	(17.0)	(10.7)	(5.4)	(3.6)	(3.6)	(8.0)	(100.0)
	(30.0)	(45.6)	(24.5)	(35.0)	(30.2)	(63.2)	(50.0)	(50.0)	(66.7)	(53.0)	
Grocery	2	10	12	2	11	1	1	1	1	4	45
	(4.4)	(22.3)	(26.8)	(4.4)	(24.4)	(2.2)	(2.2)	(2.2)	(2.2)	(8.9)	(100.0)
	(20.0)	(12.7)	(24.5)	(10.0)	(17.5)	(5.3)	(8.3)	(12.5)	(16.7)	(23.5)	
Gas-station	-	3	13	1	3	-	1	-	-	-	21
		(14.3)	(61.9)	(4.8)	(14.3)		(4.8)				(100.0)
		(3.8)	(26.5)	(5.0)	(4.8)		(8.3)				
Tyre-repair shop	-	-	4	4	4	-	3	-	-	-	15
			(26.7)	(26.7)	(26.7)		(20.0)				(100.0)
			(8.2)	(20.0)	(6.3)		(25.0)				
Distributing agent	1	11	2	3	8	3	-	2	-	-	30
	(3.3)	(36.7)	(6.7)	(10.0)	(26.7)	(10.0)		(6.7)			(100.0)
	(10.0)	(13.9)	(4.1)	(15.0)	(12.7)	(15.8)		(25.0)			
Taxi-motorcycl ist	-	4	-	-	4	-	-	-	-	-	8
		(50.0)			(50.0)						(100.0)
		(5.1)			(6.3)						
Others	4	15	6	3	14	3	1	1	1	4	52
	(7.7)	(28.8)	(11.5)	(5.8)	(26.9)	(5.8)	(1.9)	(1.9)	(1.9)	(7.7)	(100.0)
	(40.0)	(19.0)	(12.2)	(15.0)	(22.2)	(15.8)	(8.3)	(12.5)	(16.7)	(23.5)	
Total	10	79	49	20	63	19	12	8	6	17	283
	(3.5)	(27.9)	(17.3)	(7.1)	(22.3)	(6.7)	(4.2)	(2.8)	(2.1)	(6.0)	(100.0)
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	

Methamphetamine sources of origin

Region	Methamphetamine sources of origin					Total
	North	Northeast	Central	South	Minority group	
North	31	-	3	-	8	42
	(73.8)		(7.1)		(19.0)	(100.0)
	(73.8)		(3.8)		(88.9)	
Northeast	7	10	7	-	-	24
	(29.2)	(41.7)	(29.1)			(100.0)
	(16.7)	(100.0)	(9.0)			
South	-	-	2	2	-	4
			(50.0)	(50.0)		(100.0)
			(2.5)	(100.0)		
Central	4	-	66	-	1	71
	(5.6)		(93.0)		(1.4)	(100.0)
	(9.5)		(84.6)		(11.1)	
Bangkok	-	-	-	-	-	-
Total	42	10	78	2	9	141
	(29.8)	(7.1)	(55.3)	(1.4)	(6.4)	(100.0)
	(100.0)	(100.0)	(100.0)	(100.0)	(100.0)	

Appendix 15

Other types of drugs trade

Region	Other types of drugs trade		Total
	Yes	No	
North	8 (11.3) (36.4)	63 (88.7) (35.6)	71 (100.0)
Northeast	1 (3.6) (4.5)	27 (96.4) (15.2)	28 (100.0)
South	-	3 (100.0) (1.7)	3 (100.0)
Central	13 (13.4) (59.1)	84 (86.6) (47.5)	97 (100.0)
Bangkok	-	-	-
Total	22 (11.1) (100.0)	177 (88.9) (100.0)	199 (100.0)

Appendix 16

Other types of drugs trade by distributing place

Distributing place	Other types of drug distributing		Total
	Yes	No	
House	40 (87.0) (39.2)	6 (13.0) (46.2)	46 (100.0)
Grocery	20 (100.0) (19.6)	-	20 (100.0)
Gas station	5 (71.4) (4.9)	2 (28.6) (15.4)	7 (100.0)
Tyre-repair shop	3 (100.0) (2.9)	-	3 (100.0)
Distributing agent	14 (100.0) (13.7)	-	14 (100.0)
Taxi-motorcyclist	1 (100.0) (1.0)	-	1 (100.0)
Others	19 (79.2) (18.6)	5 (20.8) (38.5)	24 (100.0)
Total	102 (88.7) (100.0)	13 (11.3) (100.0)	115 (100.0)

Colors of methamphetamine tablet

Appendix 17

Color	Region					Total
	Bangkok	Central	North	South	Northeast	
White	-	4 (57.1) (2.8)	1 (14.3) (1.3)	2 (28.6) (4.3)	-	7 (100.0)
White with red spot	-	-	1 (100.0) (1.3)	-	-	1 (100.0)
Pink	-	-	-	3 (100.0) (6.5)	-	3 (100.0)
Three colors combination of pink,orange,red	-	-	-	2 (100.0) (4.3)	-	2 (100.0)
Yellow	-	6 (66.7) (4.2)	2 (22.2) (2.6)	1 (11.1) (2.2)	-	9 (100.0)
Two colors of combination of yellow and green	-	-	1 (100.0) (1.3)	-	-	1 (100.0)
Green-yellowish	-	-	1 (100.0) (1.3)	-	-	1 (100.0)
Orange, red	-	1 (100.0) (1.3)	-	-	-	1 (100.0)
Orange	2 (2.4) (66.7)	44 (53.0) (31.0)	19 (22.9) (24.7)	15 (18.1) (32.6)	3 (3.6) (60.0)	83 (100.0)

Color	Region					Total
	Bangkok	Central	Noth	South	Nothcast	
Dark orange	-	9 (75.0) (6.3)	2 (16.7) (2.6)	1 (8.3) (2.2)	-	12 (100.0)
Orange with line	-	2 (50.0) (1.4)	2 (50.0) (2.6)	-	-	4 (100.0)
Brown with line of orange	-	4 (100.0) (2.8)	-	-	-	4 (100.0)
Brown , purple	-	-	1 (100.0) (1.3)	-	-	1 (100.0)
Brown	1 (2.6) (33.3)	17 (44.7) (12.0)	19 (50.0) (24.7)	1 (2.6) (2.2)	-	38 (100.0)
White brown	-	9 (69.2) (6.3)	4 (30.8) (5.2)	-	-	13 (100.0)
Dark brown	-	13 (54.2) (9.2)	6 (25.0) (7.8)	5 (20.8) (10.9)	-	24 (100.0)
Black brown	-	-	4 (100.0) (5.2)	-	-	4 (100.0)
Red-brown	-	2 (11.1) (1.4)	4 (22.2) (5.2)	12 (66.7) (26.1)	-	18 (100.0)
Purple	-	16 (69.6) (11.3)	5 (21.7) (6.5)	2 (8.7) (4.3)	-	23 (100.0)
White purple	-	1 (100.0) (0.7)	-	-	-	1 (100.0)

Appendix 17

Color	Region					Total
	Bangkok	Central	Noth	South	Notheast	
Dark purple	-	4 (66.7) (2.8)	2 (33.3) (2.6)	-	-	6 (100.0)
Red-purple	-	4 (100.0) (2.8)	-	-	-	4 (100.0)
Purple wiht ~ line	-	-	1 (100.0) (1.3)	-	-	1 (100.0)
Red orange	-	2 (100.0) (1.4	-	-	-	2 (100.0)
Grey	-	2 (50.0) (1.4)	2 (50.0) (2.6)	-	-	4 (100.0)
Dark grey	-	2 (66.7) (1.4)	-	1 (33.3) (2.2)	-	3 (100.0)
Brown-grey	-	-	-	1 (33.3) (2.2)	2 (66.7) (40.0)	3 (100.0)
Total	3 (1.1) (100.0)	142 (52.0) (100.0)	77 (28.2) (100.0)	46 (16.8) (100.0)	5 (1.8) (100.0)	273 (100.0)

Appendix 18

Methamphetamine tablet brand

Brand	Region					Total
	Bangkok	Central	North	South	Northeast	
99/-	2 (4.3) (66.7)	19 (41.3) (15.2)	11 (23.9) (16.4)	14 (30.4) (35.9)	-	46 (100.0)
99/μ	1 (0.8) (33.3)	80 (60.6) (64.0)	34 (25.8) (50.8)	16 (12.1) (41.0)	1 (0.8) (25.0)	132 (100.0)
99/M	-	5 (35.7) (4.0)	9 (64.3) (13.4)	-	-	14 (100.0)
99/ฅ	-	1 (100.0) (0.8)	-	-	-	1 (100.0)
99/ฬ	-	3 (25.0) (2.4)	4 (33.3) (6.0)	2 (16.7) (5.1)	3 (25.0) (75.0)	12 (100.0)
99/@	-	-	1 (100.0) (1.5)	-	-	1 (100.0)
W/L	-	1 (50.0) (0.8)	-	1 (50.0) (2.6)	-	2 (100.0)
ฐ	-	-	-	2 (100.0) (5.1)	-	2 (100.0)
Ø/-	-	7 (58.3) (5.6)	2 (16.7) (3.0)	3 (25.0) (7.7)	-	12 (100.0)

Brand	Region					Total
	Bangkok	Central	North	South	Northeast	
Ø/0	-	-	1 (100.0) (1.5)	-	-	1 (100.0)
0/✱	-	3 (75.0) (2.4)	-	1 (25.0) (2.6)	-	4 (100.0)
Ø/m	-	1 (100.0) (0.8)	-	-	-	1 (100.0)
666/-	-	1 (100.0) (0.8)	-	-	-	1 (100.0)
66/μ	1 (2.6) (33.3)	1 (50.0) (0.8)	1 (50.0) (1.5)	-	-	2 (100.0)
WY/	-	3 (42.9) (2.4)	4 (57.1) (6.0)	-	-	7 (100.0)
Total	3 (1.3) (100.0)	125 (52.5) (100.0)	67 (28.2) (100.0)	39 (16.4) (100.0)	4 (1.7) (100.0)	238 (100.0)

Diameter of Methamphetamine tablet (millimeter)

Diameter of tablet (Millimetre)	Region					Total
	Bangkok	Central	North	South	Northeast	
5.45-5.84	-	1 (100.0) (0.8)	-	-	-	1 (100.0)
5.85 - 6.24	-	34 (58.6) (26.8)	18 (31.0) (25.7)	6 (10.3) (14.6)	-	58 (100.0)
6.25 - 6.64	1 (1.4) (50.0)	43 (59.7) (33.9)	16 (22.2) (22.9)	12 (16.7) (29.3)	-	72 (100.0)
6.65 - 7.04	1 (1.4) (50.0)	26 (37.7) (20.5)	21 (30.4) (30.0)	19 (27.5) (46.3)	2 (2.9) (66.7)	69 (100.0)
7.05 - 7.47	-	23 (53.5) (18.1)	15 (34.9) (21.4)	4 (9.3) (9.8)	1 (2.3) (33.3)	43 (100.0)
Total	2 (0.8) (100.0)	127 (52.3) (100.0)	70 (28.8) (100.0)	41 (16.9) (100.0)	3 (1.2) (100.0)	243 (100.0)

Thickness of methamphetamine tablet (Millimeter)

Thickness	Region					Total
	Bangkok	Central	North	South	Northeast	
1.75 - 2.14		6 (42.9) (4.7)	3 (21.4) (4.3)	5 (35.7) (12.2)		14 (100)
2.15 - 2.54	1 (1.3) (50.0)	38 (47.5) (29.9)	14 (17.5) (20.0)	26 (32.5) (63.4)	1 (1.3) (33.3)	80 (100)
2.55 - 2.94	1 (.9) (50.0)	66 (56.4) (52.0)	40 (34.2) (57.1)	8 (6.8) (19.5)	2 (1.7) (66.7)	117 (100)
2.95 - 3.34		16 (55.2) (12.6)	13 (44.8) (18.6)			29 (100)
3.35 - 3.92		1 (33.3) (0.8)		2 (66.7) (4.9)		3 (100)
Total	2 (0.8) (100)	127 (52.3) (100)	70 (28.8) (100)	41 (16.9) (100)	3 (1.2) (100)	243 (100)

Weight of methamphetamine tablet (Milligram)

Weight	Region					Total
	Bangkok	Central	North	South	Northeast	
37.96 - 59.9	-	2 (66.7) (1.4)	-	1 (33.3) (2.2)	-	3 (100)
60.0 - 69.9	-	12 (60.0) (8.5)	3 (15.0) (3.9)	5 (25.0) (10.9)	-	20 (100)
70.0 - 79.9	-	15 (51.7) (10.6)	3 (10.3) (3.9)	11 (37.9) (23.9)	-	29 (100)
80.0 - 89.9	2 (2.1) (66.7)	47 (48.5) (33.1)	27 (27.8) (35.1)	20 (20.6) (43.5)	1 (1.0) (20.0)	97 (100)
90.0 -99.9	1 (1.0) (33.3)	55 (56.1) (38.7)	34 (34.7) (44.2)	6 (6.1) (13.0)	2 (2.0) (40.0)	98 (100)
100 - 142.65	-	11 (42.3) (7.7)	10 (38.5) (13.0)	3 (11.5) (6.5)	2 (7.7) (40.0)	26 (100)
Total	3 (1.1) (100)	142 (52.0) (100)	77 (28.2) (100)	46 (16.8) (100)	5 (1.8) (100)	273 (100)

Amphetamine quantity in tablet (Milligram)

Amphetamine	Region					Total
	Bangkok	Central	North	South	Northeast	
0	3 (1.1) (100.0)	142 (52.2) (100.0)	76 (27.9) (98.7)	46 (16.9) (100.0)	5 (1.8) (100.0)	272 (100)
19.88	-	-	1 (100.0) (1.3)	-	-	1 (100)
Total	3 (1.1) (100)	142 (52.0) (100)	77 (28.2) (100)	46 (16.8) (100)	5 (1.8) (100)	273 (100)

Methamphetamine quantity in tablet (Milligram)

Methamphetamine	Region					Total
	Bangkok	Central	North	South	Northeast	
0	-	9 (60.0) (6.3)	4 (26.7) (5.2)		2 (13.3) (40.0)	15 (100)
0.1 - 5.0	-	-	1 (100.0) (1.3)	-	-	1 (100)
5.1 - 10.0	-	8 (66.7) (5.6)	4 (33.3) (5.2)	-	-	12 (100)
10.1 - 15.0	-	17 (44.7) (12.0)	2 (5.3) (2.6)	19 (50.0) (41.3)	-	38 (100)
15.1 - 20.0	-	39 (56.5) (27.5)	15 (21.7) (19.5)	14 (20.3) (30.4)	1 (1.4) (20.0)	69 (100)
20.1 - 25.0	3 (2.7) (100.0)	60 (53.1) (42.3)	37 (32.7) (48.1)	11 (9.7) (23.9)	2 (1.8) (40.0)	113 (100)
25.1 - 30.0	-	9 (37.5) (6.3)	13 (54.2) (16.9)	2 (8.3) (4.3)	-	24 (100)
30.1 - 35.0	-	-	1 (100.0) (1.3)	-	-	1 (100)
Total	3 (1.1) (100)	142 (52.0) (100)	77 (28.2) (100)	46 (16.8) (100)	5 (1.8) (100)	273 (100)

Ephedrine quantity in tablet (Milligram)

Ephedrine	Region					Total
	Bangkok	Central	North	South	Northeast	
0	3 (1.4) (100.0)	112 (50.5) (78.9)	64 (28.8) (83.1)	39 (17.6) (84.8)	4 (1.8) (80.0)	222 (100)
0.1 - 5.0	-	11 (52.4) (7.7)	6 (28.6) (7.8)	4 (19.0) (8.7)	-	21 (100)
5.1 - 10.0	-	5 (62.5) (3.5)	2 (25.0) (2.6)	1 (12.5) (2.2)	-	8 (100)
10.1 - 15.0	-	8 (80.0) (5.6)	1 (10.0) (1.3)	1 (10.0) (2.2)	-	10 (100)
15.1 - 20.0	-	1 (50.0) (.7)	1 (50.0) (1.3)	-	-	2 (100)
20.1 - 25.0	-	-	1 (33.3) (1.3)	1 (33.3) (2.2)	1 (33.3) (20.0)	3 (100)
25.1 - 30.0	-	2 (66.7) (1.4)	1 (33.3) (1.3)	-	-	3 (100)
30.1 - 35.0	-	1 (50.0) (.7)	1 (50.0) (1.3)	-	-	2 (100)

Ephedrine	Region					Total
	Bangkok	Central	North	South	Northeast	
35.1 - 40.0	-	1 (100.0) (.7)	-	-	-	1 (100)
40.1 - 45.0	-	1 (100.0) (.7)	-	-	-	1 (100)
Total	3 (1.1) (100)	142 (52.0) (100)	77 (28.2) (100)	46 (16.8) (100)	5 (1.8) (100)	273 (100)

Caffeine quantity in tablet (Milligram)

Caffeine	Region					Total
	Bangkok	Central	North	South	Northeast	
0	-	8 (40.0) (5.6)	9 (45.0) (11.7)	3 (15.0) (6.5)	-	20 (100)
0.1 - 5.0	-	-	1 (100.0) (1.3)	-	-	1 (100)
10.1 - 15.0	-	-	1 (100.0) (1.3)	-	-	1 (100)
15.1 - 20.0	-	-	1 (100.0) (1.3)	-	-	1 (100)
20.1 - 25.0	-	-	1 (100.0) (1.3)	-	-	1 (100)
25.1 - 30.0	-	2 (66.7) (1.4)	1 (33.3) (1.3)	-	-	3 (100)
30.1 - 35.0	-	1 (16.7) (.7)	4 (66.7) (5.2)	-	1 (16.7) (20.0)	6 (100)
35.1 - 40.0	-	6 (40.0) (4.2)	5 (33.3) (6.5)	4 (26.7) (8.7)	-	15 (100)

Caffeine	Region					Total
	Bangkok	Central	North	South	Northeast	
40.1 - 45.0	-	5 (22.7) (3.5)	8 (36.4) (10.4)	8 (36.4) (17.4)	1 (4.5) (20.0)	22 (100)
45.1 - 50.0	3 (6.5) (100.0)	18 (39.1) (12.7)	14 (30.4) (18.2)	11 (23.9) (23.9)	-	46 (100)
50.1 - 55.0	-	31 (54.4) (21.8)	17 (29.8) (22.1)	8 (14.0) (17.4)	1 (1.8) (20.0)	57 (100)
55.1 - 60.0	-	37 (66.1) (26.1)	9 (16.1) (11.7)	9 (16.1) (19.6)	1 (1.8) (20.0)	56 (100)
> 60	-	34 (77.3) (23.9)	6 (13.6) (7.8)	3 (6.8) (6.5)	1 (2.3) (20.0)	44 (100)
Total	3 (1.1) (100)	142 (52.0) (100)	77 (28.2) (100)	46 (16.8) (100)	5 (1.8) (100)	273 (100)

Case study on the spread of methamphetamine in one district of Lampang province

Physical type					Chemical type			
Color	Brand	Length	Thickness	Weight	Amphetamine	Methamphetamine	Ephedrine	Caffeine
Gray	99/ ห	6.65	2.61	90.6	0	20.1	0	0
Orange	99/ ห	6.13	3.18	101.48	0	15.1	0	55.1
Black brown	99/M	6.57	2.64	94.9	0	25.1	0	60.1
Orange	99/M	7.07	2.57	99.15	0	15.1	0	0
Dark purple	/-	6.57	2.75	91.42	0	20.1	0	20.1
Black brown	99/ ฬ	7.08	2.58	104.32	0	25.1	0	35.1
Purple	WY/	6.04	2.94	85.8	0	20.1	0	40.1
Orange	-/-	8.88	8.88	64.31	0	15.1	0	45.1
Brown	99/ห	6.93	2.48	86.32	0	20.1	0	50.1
Orange	99/ห	6.06	3.03	93.37	0	20.1	0	35.1
Brown	99/ ห	7.03	2.63	95.26	0	20.1	0	0
Purple	WY/	6.08	2.96	85.18	0	20.1	0	55.1
White brown	99/ห	6.04	2.89	88.02	0	20.1	0	40.1
White	ϕ/-	6.06	3.23	103.71	0	15.1	5.1	45.1

Physical type					Chemical type			
Color	Brand	Length	Thickness	Weight	Amphetamine	Methamphetamine	Ephedrine	Caffeine
Brown	ϕ/-	6.18	2.66	88.6	0	10.1	25.1	25.1
Brown	99/M	6.96	2.46	86.58	0	25.1	0	45.1
Red brown	99/-	7.05	2.61	93.22	0	20.1	0	35.1
Brown	99/ห	6.99	2.59	91.32	0	20.1	0	55.1
Dark brown	99/ห	7.04	2.66	100.98	0	20.1	0	45.1
Dark brown	99/ ฬ	7.06	2.35	86.69	0	30.1	0	30.1
Brown	99/ ฬ	7.12	2.71	107.98	0	20.1	0	50.1
Purple	WY/	6.09	2.03	86.49	0	25.1	0	45.1
Orange	99/ ห	7.06	2.53	88.32	0	20.1	0	50.1
Yellow	99/ ห	8.88	8.88	85.05	0	20.1	0	30.1
Purple with line	99/-	6.08	3.22	92.33	0	20.1	0	50.1

Spreading of methamphetamine with 99/- brand and color of orange

Province	Physical Character			Chemical use (milligram)			
	Length : millimetre	Thick: millimetre	Weight : milligram	Amphetamine	Methamphetamine	Ephedrine	Caffeine
Kampaenpet	7.04	2.74	96.62	0	20.1	0	45.1
Kampaenpet	7.03	2.59	88.99	0	20.1	0	45.1
Chantaburi	8.88	8.88	94.41	0	20.1	0	35.1
Chumphon	7.16	2.5	93.4	0	20.1	0	50.1
Chiangrai	6.15	2.99	96.86	0	20.1	0	50.1
Nakhonpathom	7.05	2.65	93.77	0	20.1	0	50.1
Nakhonpathom	7.11	2.63	93.46	0	20.1	0	0
Pisanulok	8.88	8.88	80.25	0	20.1	0	50.1
Rayong	8.88	8.88	92.39	0	20.1	0	35.1
Satun	7.37	2.54	88.36	0	20.1	0	0
Saraburi	7.05	2.69	98.11	0	20.1	0	50.1
Singburi	7.02	2.69	96.05	0	20.1	0	40.1
Angtong	7.07	2.72	97.98	0	25.1	0	45.1
Bangkok	6.99	2.7	96.34	0	20.1	0	45.1
Bangkok	8.88	8.88	89.23	0	20.1	0	45.1

Spreading of methamphetamine with 99/-ม brand and dark blown color

Province	Physical Character			Chemical use (milligram)			
	Length : millimetre	Thick: millimetre	Weight : milligram	Amphetamine	Methamphetamine	Ephedrine	Caffeine
Kanchanaburi	6.52	2.57	90.26	0	15.1	0	55.1
Nakhonayok	7.01	2.76	101.82	0	20.1	0	50.1
Patumtani	6.58	2.58	89.08	0	15.1	0	55.1
Patumtani	6.6	2.68	95.46	0	15.1	0	0
Prachuap khiri khan	7.02	2.32	93.36	0	0	10.1	60.1
Pattani	6.64	2.39	81.67	0	20.1	0	0
Pattani	6.61	2.36	79.77	0	20.1	0	0
Ayuthaya	6.52	2.86	98.81	0	15.1	0	60.1
Ayuthaya	6.54	2.84	95.5	0	20.1	0	50.1
Phetchaburi	6.69	2.67	96.19	0	15.1	0.1	60.1
Phetchabun	6.61	2.64	92.74	0	15.1	0	60.1
Ratchaburi	6.56	2.47	82.8	0	15.1	0	50.1
Lop buri	6.56	2.48	84.39	0	15.1	0	60.1

Appendix 28

Province	Physical Character			Chemical use (milligram)			
	Length : millimetre	Thick : millimetre	Weight : milligram	Amphetamine	Methamphetamine	Ephedrine	Caffeine
Lampang	7.04	2.66	100.98	0	20.1	0	45.1
Lampoon	6.72	2.47	89.55	0	15.1	0.1	30.1
Saraburi	6.55	2.56	86.15	0	20.1	0	50.1
Surattani	6.6	2.52	84.11	0	25.1	0	40.1
Angtong	6.58	2.48	82.28	0	20.1	0	0

HIV RISK BEHAVIOR AMONG FEMALE COMMERCIAL SEX WORKERS

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INTRODUCTION

HIV infection is primarily a sexually transmitted disease. Commercial Sex Workers (CSWs) and their clients represent an obviously by high risk group for sexually transmitted diseases as a result of their sexual practices. Commercial Sec Workers who have a history of sexually transmitted diseases are at an increased risk of acquiring HIV. Yangon and Mandalay have consistently participated in sentinel surveys on CSWs. The overall trend is rapidly increasing prevalence rates, from 4.3% to 18%.

This is an exploratory study of (20) women inmates who were detained at the Adult Training Home for Women under the Ministry of Social Welfare. These women inmates are serving a term of one and half years at the home due to their involvement as Commercial Sex Workers.

2. OBJECTIVES

- to find out the demographic characteristics of CSWs,
- to study their drug taking practices and sexual practices and
- to study their health knowledge concerning HIV / AIDS

3. MATERIAL AND METHOD

An exploratory study was conducted. The subjects were interviewed by using questionnaires as developed by East Asian Multi-City Epidemiology Work Group. A sufficient level of understanding between the interviewer and the interviewee was developed. The following are topics covered for each individual CSW at the Adult Training Home for Women. They are:-

- Demographic characteristics,
- Drug taking practice,
- Sexual practice and
- Health knowledge concerning HIV / AIDS

4. FINDINGS AND DISCUSSION

4.1 Demographic Characteristics

Age

The mean age of CSWs was 19.7 years, the youngest being 14 and the highest being 30 with a range of 16 years where 75 percent of them were at the age group of 15 to 24 years.

Marital Status

Ten respondents (50%) were single, 3 (15%) were married, 6 (30%) were separated and 1 (5%) was divorced. The findings illustrate that the majority of the CSWs were single which highlighted that earning money by this way could help to solve the financial problems after marriage. After separation from marriage, daily problems forced many of them to earn a living by selling sex which required no outlay.

Table 1: Marital Status Of CSWs

Marital Status	Number	Percentage
Single	10	50.0
Married	3	15.0
Separated	6	30.0
Divorced	1	5.0
Total	20	100.0

Occupation

Out of the 20 respondents, 9 (45%) were working as CSWs for less than 6 months while 8 (40%) were working for 6 months to 1 year. The rest, that is, 15 percent had more than 2 years experience in this profession. One the whole it was found that some of them earned their living often as vendors or petty traders during the course.

Status Quo

Fifty-five percent of them were living with their co-workers and 40 percent were living with their families and relatives.

Education

Among them 50 percent had 1 to 6 years of education while 10 percent had 7 - 12 years. Forty percent of them were found to be illiterate. Illiteracy and low levels of education posed as contributory factors in forcing them to choose this profession where no education is needed.

4.2 Drug Taking Practice

Since the sample size is small drug taking characteristics could not reveal the true nature of the study. However, it was found that 4 (20%) used alcohol occasionally and 1 (5%) used minor tranquilizers to relieve stress and tension. Injecting drug use behavior was not found among the respondents in this study.

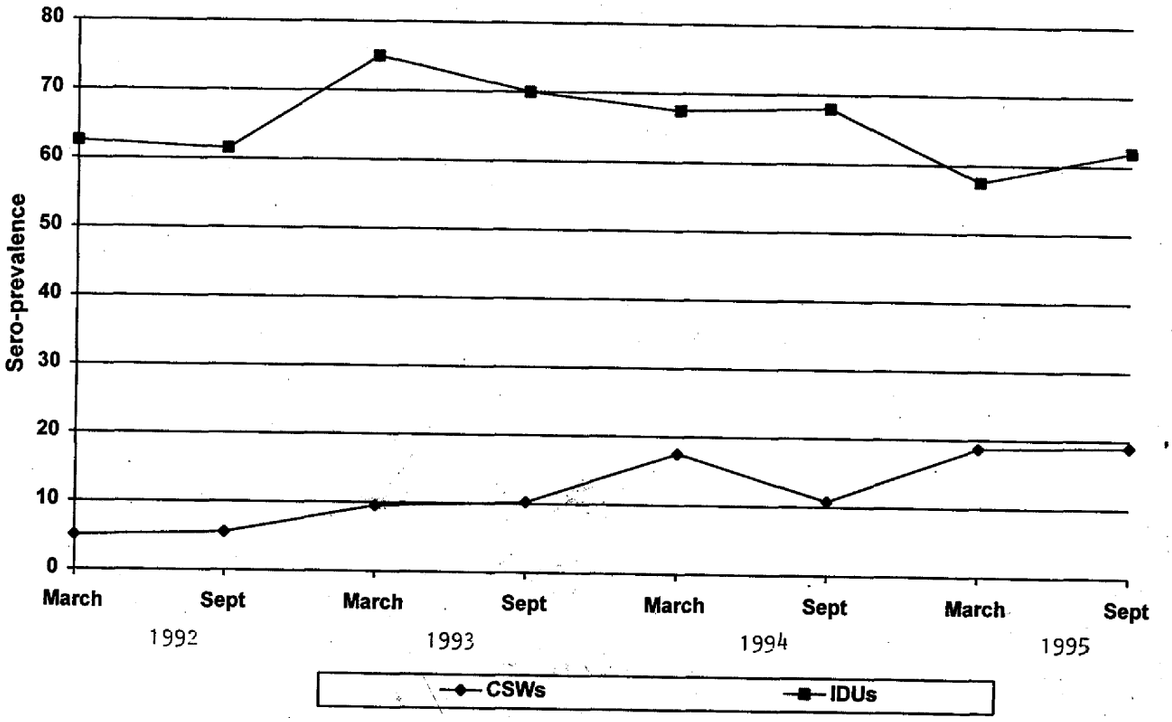
4.3 Sexual Practice

On the average the CSWs (55%) were having sex with 1 to 3 persons a day. The minimum number of sex served was found to be one and the maximum being 20 to 25 a day for a CSW. Even though 35 percent of CSWs insisted that their customers use condoms only 70 to 80 percent of their customers agreed to use it. Among 20 to 30 percent of customers who did not agree to use condoms, it was found that 57 percent of them were refused by their CSWs while 43 percent were found to be submissive. Among those CSWs who did not insist upon using condom it was found that 15 percent of their customers used no condoms, 30 percent used condoms occasionally and the remaining 55 percent used most frequently . Even though all of them had normal sexual practice, 10 percent had oral sex, 5 percent had anal sex and 10 percent had both anal and oral sex with their clients.

4.4 Health Knowledge

Twenty-five percent of CSWs knew about the transmission of HIV out of which 60 percent could tell that the transmission of the disease was due to unprotected sexual intercourse while 40 percent understood that HIV infection is transmitted through both unsterilized injection and unprotected sexual intercourse with their partners. Fifty percent of them did not know how HIV was transmitted and 25 percent never heard about HIV / AIDs throughout their commercial sex practice.

Comparison Of Overall Sero-prevalence Rates Between IDUs And CSWs (1992 - 1995)



PART 3

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